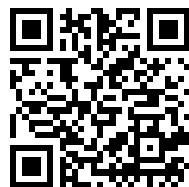
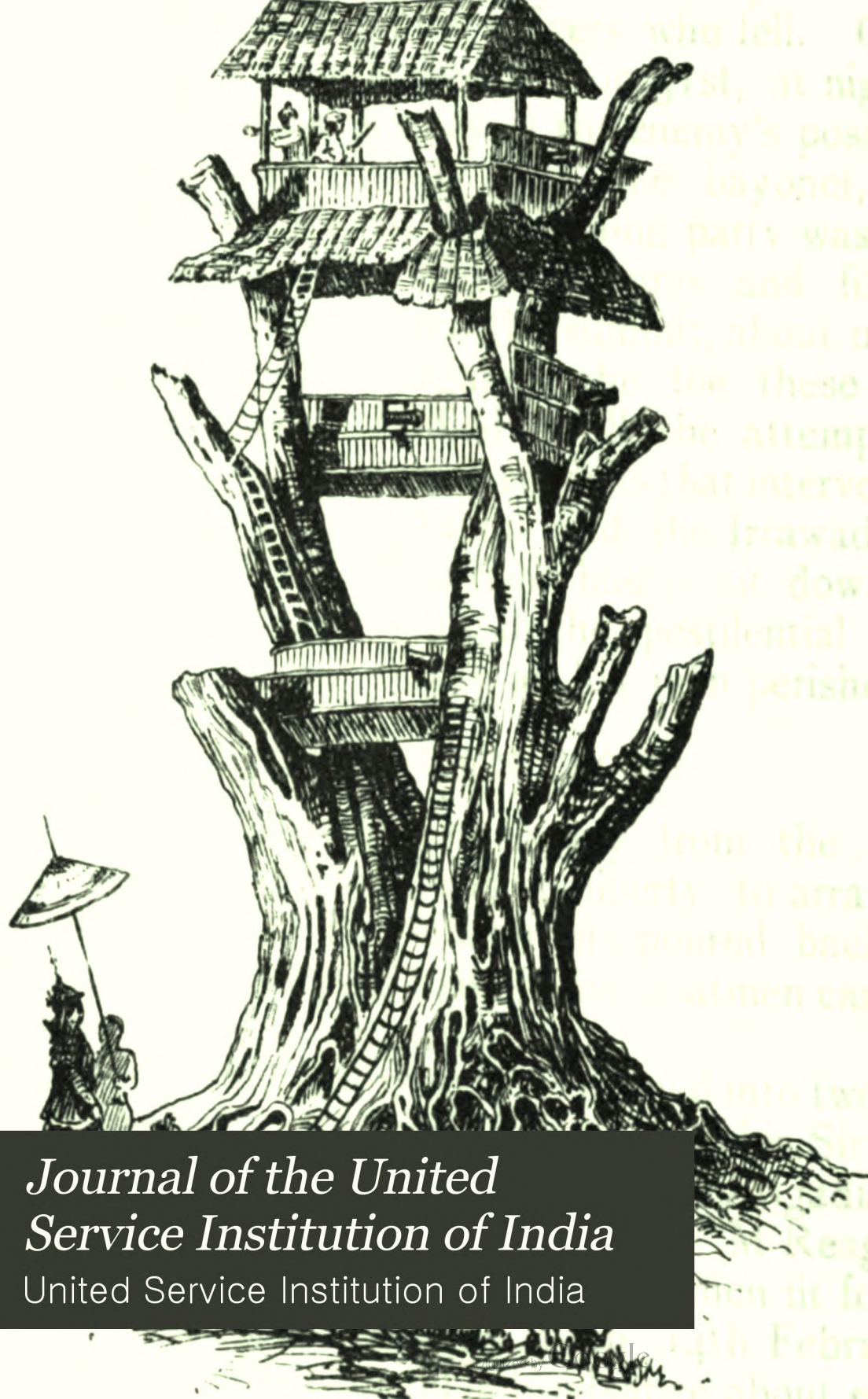

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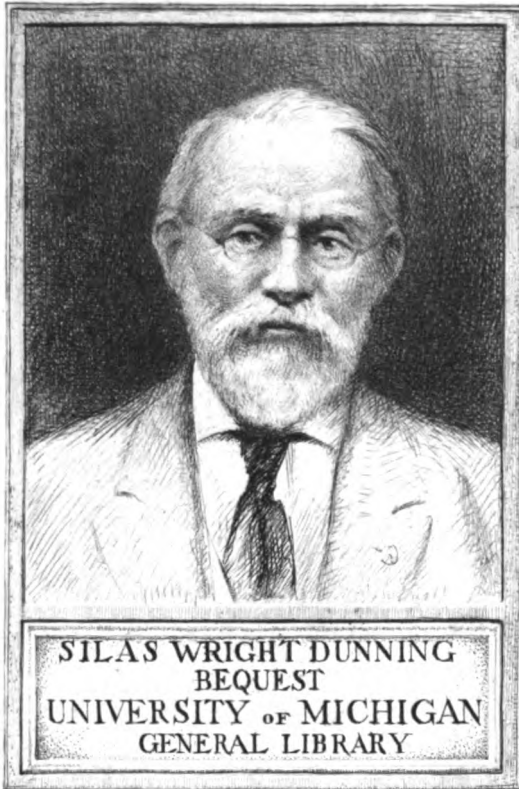
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*Journal of the United
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United Service Institution of India



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Journal of the United Service Institution of India.

VOL. XXVII-1898.

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United Service Institution of India.

NOTICE.

The following matters will be brought up for consideration at the meeting of the Council to be held in the Reading Room, at 5 P. M., on Friday, the 17th June 1898.

I.—The audited accounts for 1897.

II.—Balance sheet for the year ending 31st December 1897.

III.—Estimate for 1898.

| | <i>Life.</i> | <i>Ordinary.</i> | <i>Inst.</i> | <i>Total.</i> |
|--------------------------------------|--------------|------------------|--------------|---------------|
| IV.—Members on 1st January 1897..... | 78 | 700 | 35 | — 813 |
| Removed during 1897..... | 2 | 30 | 3 | — 35 |
| Joined during 1897..... | 6 | 101 | 12 | — 119 |
| Remained on 31st December 1897, 82 | | 771 | 44 | — 897 |

V.—Election of an Executive Committee.

VI.—Appointment of a Secretary.

VII.—The investment of the funds of the Institution.

VIII.—Proposal to continue payment for good Articles for the Journal:
about Rs. 300 per annum to be devoted to this.

IX.—Action to be taken with reference to the award of the Gold Medal for 1897-98.

X.—Selection of a subject for the Prize Essay of 1898-99.

UNITED SERVICE INSTITUTION OF INDIA.

Cash account for the year 1897.

| RECEIPTS. | AMOUNT. | | TOTAL. | | EXPENDITURE. | AMOUNT. | | TOTAL. | |
|-------------------------------------|---------|-------|--------|-------|---|---------|-------|--------|-------|
| | Rs. | A. P. | Rs. | A. P. | | Rs. | A. P. | Rs. | A. P. |
| By Balance brought forward | ... | ... | 693 | 10 7 | To Secy's. and Asst. Secy's. allowance | 1,800 | 0 0 | | |
| " Government Grant-in-aid | 3,000 | 0 0 | | | " Office establishment | 452 | 0 0 | | |
| " Subscriptions and Donations... .. | 4,032 | 15 0 | | | " Office Stationery & Mis. Printing | 178 | 6 2 | | |
| " Interest | 293 | 7 4 | | | " Library and Newspapers | 309 | 6 3 | | |
| " Advertisements | 755 | 0 0 | | | " Postage | 134 | 5 0 | | |
| " Miscellaneous | 221 | 12 6 | | | " Journals | 2,020 | 12 7 | | |
| | | | | | " Rent of Premises | 900 | 0 0 | | |
| | | | | | " Miscellaneous * | 579 | 2 6 | | |
| | | | | | By amount in floating account with Alliance Bank | | | 6,374 | 0 6 |
| | | | | | | | | 2,622 | 12 11 |
| TOTAL RUPEES... .. | 8,996 | 13 5 | | | TOTAL RUPEES | 8,996 | 13 5 | | |

Audited and found correct.

C. MILNER.

SIMLA, 18th January 1898.

* Includes Rs. 20 for furniture.

C. H. CLAY, Captain,
for Secy., U. S. I of India.

UNITED SERVICE INSTITUTION OF INDIA.

Balance Sheet for the year ending 31st December 1897.

| LIABILITIES. | AMOUNT. | | | ASSETS. | | | AMOUNT. | | |
|------------------|---------|-----|-----|--|--|--|---------|-----|----|
| | Rs. | As. | P. | | | | Rs. | As. | P. |
| Nil. | — | ... | ... | By amount in Floating account in Alliance Bank ... | | | 2,622 | 12 | 11 |
| | | | | " Rs. 4,000 in 3½ % Government Paper @ Rs. 95.0.0 ... | | | 3,800 | 0 | 0 |
| Balance Credit — | 10,342 | 12 | 11 | " Fixed Deposit in Alliance Bank, Rs. 3,500 @ 4½ % ... | | | 3,500 | 0 | 0 |
| | | | | Furniture valued at ... | | | 420 | 0 | 0 |
| TOTAL RUPEES ... | 10,342 | 12 | 11 | TOTAL RUPEES ... | | | 10,342 | 12 | 11 |

SIMLA, June 1898.

C. H. CLAY, Captain,
Actg. Secy., U. S. I. of India.

Estimate for the year 1898.

C. H. CLAY, CAPTAIN,
Acting Secy., U. S. I. of India.

SIMLA,
June 1898.

PROCEEDINGS of a Meeting of the Council of the United Service Institution of India, on the 17th June 1898.

P R E S E N T :

The Hon'ble Major-Genl. Sir E. H. H. Collen, K. C. I. E., C. B.
(Presiding).

Major-General G. de C. Morton, C. B.

Major-General T. B. Tyler, R. A.

Major-General E. L. Elliot, C. B., D. S. O.

Colonel G. H. More-Molyneux.

Colonel J. H. S. Craigie.

Lieutenant-Colonel E. G. Barrow, C. B.

Lieutenant-Colonel H. W. Duperier, R. E.

Lieutenant-Colonel E. De Brath.

Major G. V. Kemball, R. A.

Major H. Mullaly, R. E.

Major W. D. Thomson.

Major H. B. B. Watkis.

Capt. C. H. Clay (Acting Secretary).

1. **RESOLVED.**—That the audited accounts of 1897, be passed as correct.

2. **RESOLVED.**—That the various accounts be passed as correct.

3. **RESOLVED.**—That an increase of Rs. 5 p. m. to the salary of the Native Librarian be sanctioned with effect from July 1897.

4. **RESOLVED.**—That the Executive Committee for the current year shall consist of :—

Major-General T. B. Tyler, R. A.

Colonel G. H. More-Molyneux.

Major W. D. Thomson.

Major H. B. B. Watkis.

5. **RESOLVED.**—That the Acting Secretary, Captain C. H. Clay, 43rd Gurkha Rifles, be appointed as Secretary for a year from present date.

6. **RESOLVED.**—That the sum of Rs. 1,500, be transferred from Current Account to the Reserve Fund, and be invested in Government paper.

7. **RESOLVED.**—That Rs. 500 be placed at the disposal of the Executive Committee, for allotment as premia to the authors of articles of exceptional merit.

8. **RESOLVED.**—That the winner of the Gold Medal for the Prize Essay for 1898 is Major H. Mullaly, R. E., and that a Silver Medal be specially awarded to Captain C. H. Clay, 43rd Gurkha Rifles.

9. **RESOLVED.**—That Members of the Council be invited to offer suggestions for the Prize Essay for 1899, and to submit their suggestions to the Secretary by the 1st July 1898.

10. **RESOLVED.**—That the question of accommodation for the Institution be considered by the Executive Committee and a Report submitted to the Council.

The Journal
OF THE
United Service Institution of India.

VOL. XXVII.

1898.

NO. 130.

THE STORY OF CORUNNA.

BY COLONEL H. D. HUTCHINSON.

INTRODUCTION.

YOUR EXCELLENCY, LADIES, AND GENTLEMEN,

In fulfilment of the promise made to you recently, I am going to tell you this afternoon "The Story of Corunna"—a story with which of course the name of the gallant Sir John Moore is inseparably connected. You will recollect that in the discussion which followed my lecture on "The Fortune of War," Sir Edwin Collen expressed the hope that the subject of my next address to you should be a campaign in which everything worked out smoothly and correctly, from start to finish, according to a deliberately thought-out plan; and in which the fortune of war should be conspicuous by its absence, so that we might have the opportunity of comparing the skill of rival leaders, and of observing, on the one hand, the effects of errors of judgment or calculation, and, on the other, the triumph of well-laid schemes, when backed by discipline and seasoned valour. But I do assure you, Ladies and Gentlemen, though I have given considerable attention to the matter, and would have gladly adopted General Collen's suggestion if I could, I have not been able to find a campaign, suitable at all events for the purposes of a popular lecture, in which Fortune has not played a frequent and conspicuous part on one side, or the other; generally on both sides, for often

A

what has been good fortune for one, has been bad fortune for the other. No doubt history affords many instances of skilful strategy successfully planned, of marches and manœuvres splendidly and punctually carried out with a fixed purpose, and of battles resolutely fought, and gloriously won, as the result of prescient and able combinations: but probably there is no campaign, taken as a whole, in which Fortune has not intervened, and contributed her share to success or failure, to victory or defeat. I can only say—Happy is the Commander who has fortune on his side, and thrice happy he who has known in his hours of leisure how to prepare himself for the stern realities of war, who has fortified himself for every event by earnest study and trained reflection, and who has schooled himself not to depend upon Fortune, but to be ready to meet her more than half-way when she is gracious, and to look her in the face with undaunted mind when she is disposed to frown.

In the campaign of which I am now going to try and give you a sketch, Fortune played such a frequent and such an important share, that I am afraid you will almost think that this lecture has been selected to be a continuation in some sort of that which I gave you in July. But I can assure you it is not so. I have chosen it because it is the opening scene of a war which was the most glorious, whether we consider the motives that prompted us to enter on it, or the achievements of our gallant soldiers in it while it lasted, in which we have ever been engaged: a war of which Napoleon said afterwards at St. Helena—"It was *this* war that was my ruin. All my misfortunes dated from that fatal undertaking. It divided my strength: it multiplied my cares: it complicated my embarrassments: and it opened a school to English soldiers. It is *I* who made the English Army, in the Peninsula!" I have also selected this campaign of Corunna, because even without considering to what great events it was the introduction, it is one full of situations of intense dramatic interest: and while it shows what are the uncertainties of war, what are the terrible trials and difficulties of war, and what dreadful and disastrous consequences must result from any relaxation of discipline during the operations of war, it teaches also how uncertainties may be faced with calmness, how trials and difficulties may be met and overcome by resolution and courage, and how even indiscipline, and insubordination, may be atoned for by valour in the field. Above all, the campaign of Corunna deals with the deeds of British troops. It exhibits their failings, and

their virtues, in a strong light, and as in these days it is so much the fashion to study continental models and methods, for instruction in the art of war, I thought it would be a not unwelcome change to direct attention for a brief space to the doings of English armies under English Generals, and to see what lessons we can learn from their failures, as well as from their successes.

I propose, for the sake of clearness, to divide my subject into four sections. In the first, I will succinctly sketch for you the causes which led to what is known as "The Peninsular War," and the situation generally at the opening of this particular campaign. In the second, I will summarise for you the leading incidents in the Vimeiro campaign which ended with the Convention of Cintra. In the third, I will tell you the story of Corunna, including briefly Napoleon's operations as well as Sir John Moore's: and in conclusion, I will describe the retreat, and the battle of Corunna with which the campaign ended, and add, perhaps, a few reflections, which I trust may be supplemented by the remarks and comments of some of the many able critics who are present this afternoon, and whose speeches, I am sure, will be received by all of us with interest and attention.

PART I.

First, then, what was the cause of the Peninsular War? Briefly, it was the ambition of Napoleon which brought on this life-struggle, and in this way. He was determined by some means or other, to get even with England, to humble her pride, to displace her from the great and unassailable position which she enjoyed by virtue of her absolute command of the seas, and to add her to the long list of those who already acknowledged his supremacy, and tremblingly obeyed his imperious behests. Belgium and Holland were at this period practically integral portions of the French Empire. Westphalia, Hanover, Bavaria, the Rhine country, Switzerland, and even Italy, were little more than Provinces of France. The three principal Continental Powers, Austria, Prussia, and Russia, had confessed the might of the great Emperor's arm, and one after another had submitted to his terms. Austria had gone down before him at Austerlitz in 1805: Prussia had been destroyed as a military power at Jena and Auerstadt in 1806: and Russia had been overwhelmed, temporarily at all events, in the following year, 1807, on the bloody fields of Eylau and Friedland. England alone remained unconquered

and unconquerable. In 1805, Napoleon had made vast preparations to cross the Channel, and attack her on her own soil, and to those who would like to have some idea of the great camp formed for this purpose at Boulogne, I would recommend a perusal of a recent novel by Dr. Conan Doyle, entitled "Uncle Bernac," in which will be found quite a clever sketch of what was going on there, and of the Emperor himself, and of the great men by whom he was surrounded, at that time. But this scheme of invasion was frustrated by the vigilance and exertions of the British Fleet under Nelson, and when the disaster of Trafalgar on the 21st October, 1805, had destroyed the last hope of carrying the war against England into British territory, Napoleon formed the design of ruining the trade of the country by shutting English ships out of every port in Europe. By his famous Berlin Decree (21st November, 1806) the British Islands were declared by him to be in a state of blockade, and all correspondence, and commerce, with them was absolutely prohibited: all trade in English goods was entirely forbidden, and no ship coming direct from Britain, or from a British Colony, was allowed to enter any European port.

Now it is easy to understand that the harsh restrictions of an enactment, so all-embracing as this, must have imposed hardships, injustice, and serious loss, not only on England, against which they were aimed, but on all those countries, particularly maritime countries, which were bound, through terror of Napoleon, to observe, and enforce them. Yet most of the States of Europe stood, and with good reason, in such fear of the Emperor, that, at all events openly, they dared not oppose his will in this matter. There was, however, one exception—Portugal, where British influence was still paramount. Portugal still continued to carry on a profitable trade with England, and through her ports, and through Gibraltar, English goods were steadily passed into Spain.

Here, then, was for Napoleon ample excuse for fixing a quarrel on Portugal. But his relations with Spain must be considered too. The treaty of Tilsit just signed (July, 1807), afforded him leisure to turn his attention now to this country, which was distracted at this period by the unhappy strifes and intrigues, perpetually recurring between the weak King (Charles IV.), his son Ferdinand, and the Minister, the Queen's favourite, Godoy, and their respective partisans and backers. For some time past, Napoleon had considered Spain only lukewarm in her professions of friendship and support, and had been uneasy lest she should, with Portugal, unite with

England against him; an alliance which, having regard to England's command of the sea, and to the vulnerability of France if attacked by these allies from the South, would place him in an embarrassing situation. He was glad, therefore, of any pretext to interfere in her affairs, and when the unscrupulous Godoy secretly proposed to him the conquest and partition of Portugal, promising the aid of Spain, on the condition that a share of the spoil should be set apart for himself, the Emperor eagerly adopted the suggestion, and determined to seize the opportunity thus offered to arbitrate (which he had been asked to do), to some purpose, in the domestic squabbles which still disgraced the Court of Spain.

His first step was to persuade the King, through the influence of Godoy, to enter upon a secret treaty with himself. (The Treaty of Fontainebleau, 27th October, 1807.) This treaty was one of the blackest treachery towards Portugal. By it, a French army was to be permitted to enter Spain: a Spanish army was to join it: and the combined armies were then to seize Portugal, which was to be wiped out of the map of Europe (as Poland had been in 1794) and divided up between France, and Spain, and Godoy! Arrangements to carry out this programme were forthwith made. It was quite enough that Portugal had disregarded the Berlin Decree, and that afterwards, when peremptorily ordered (as proof of her friendship with France) to declare war against England, she had dared to venture on a remonstrance. Before even the Treaty of Fontainebleau was signed, a French Army under Junot, already collected at Bayonne, was launched across the frontier, and hurried through Spain to Lisbon, regardless of the sullen attitude of the Spaniards, who *as a nation* cared little for promises made by the corrupt Court at Madrid, and viewed this invasion with well-founded suspicion: and heedless of the difficulties and hardships encountered on the road which reduced the troops to such straits,* that by the time they

* "The hostility of the Spaniards, the forced marches which the soldiers were compelled to make, and the excessive severity of the rains, which fall in that country at that period of the year, with all the violence of the tropics, soon reduced the army to the most frightful state of disorder. * * * Discipline was soon at an end.

* Many battalions subsisted for days together on nothing but chesnuts: the soldiers, drenched from head to foot, lay down on the way side without food or shelter: and this fine army, 26,000 strong when it left Bayonne, amounted when it reached Abrantes in Portugal, only to 4,000 stragglers, half of them without arms!"—*Alison, VII, 267.*

"It is impossible," says *Thiébault*, who was an eye-witness, "to give an idea of the sufferings of the army. * * * It was on the verge of dissolution: it was on the point of disbanding altogether: the General-in-Chief was within a hair's-breadth of being left without any followers! But the orders of Napoleon to Junot were peremptory, and admitted of no hesitation:—'On no account halt in your march, even for a day. The want of provisions could be no reason for doing so, still less the state of the roads. *Twenty-thousand men can march and live anywhere, even in a desert.*'"

reached Portugal "they resembled rather the fugitives who had escaped from a disastrous retreat, than the proud array which was to overturn a dynasty, and subdue a kingdom."

At this juncture, the Portuguese might easily have risen against the French and overwhelmed them. But unhappily they did not dare. On the one hand, they were in terror of Napoleon, of whose far-reaching power Junot's Corps (however miserable its condition at the present moment) was, they well knew, only the advanced-guard: and on the other, submission to the Emperor, and hostility to England, meant for them the destruction of their commerce, and the instant loss of all their colonies. They were, in truth, between the devil and the deep sea, and while they still hesitated, Junot entered Lisbon without opposition, announcing that he came by Napoleon's orders as a friend and ally, his mission being only to exclude the English from Portugal, and "to make common cause with their well-beloved sovereign against the tyrant of the seas"!* The "well-beloved sovereign" did not, however, deem it prudent to await the arrival of the French, or to trust himself to the tender mercies of their Emperor, and just before Junot entered the capital, he with all his family and adherents set sail for the Brazils, encouraged and supported by the British Ambassador (Lord Strangford, at this time), who assured him that whatever Portugal might have said against England, under pressure by Napoleon, nothing should abate the friendship of his old ally if he would still avail himself of it.†

In the meantime, Junot quietly took military possession of the country, and made secure the principal arsenals, forts, and batteries: while the Spaniards, co-operating as arranged, occupied Elvas in the south, and Oporto in the north, without encountering resistance. This was in the end of November 1807. The Portuguese army was next partly disbanded, and partly sent to France, and the unhappy people now at the complete mercy of the invaders, realised at last that they had been betrayed and ruined, and were fated henceforth to be simply a province of France.

* "In the *Moniteur* meantime had appeared the ominous line 'The house of Braganza has ceased to reign': and with the paper containing that announcement of the fate which awaited them, Lord Strangford transmitted to the Prince Regent copies of the secret treaty and convention of Fontainebleau, by which the portions assigned to each of the partitioning Powers were assigned."—*Alison*, VII, 269.

† "This celebrated emigration was beneficial to the Brazils, gave England great commercial advantages, and placed Portugal at her disposal for the approaching conflict: but it was disgraceful to the Prince, insulting to the brave people he abandoned, and impolitic."—*Napier*, I, 90.

So much for Portugal. But the turn of Spain was only deferred for a brief space. Under the treaty of Fontainebleau, a second army, 53,000 strong, was assembled at Bayonne, ostensibly designed to support the first under Junot. These troops were gradually advanced into Spain by routes which enabled them to occupy Madrid, and strong strategic positions throughout the country, and to possess themselves by various artifices of the great frontier fortresses of St. Sebastian, Pampeluna, Barcelona, and Figueras.* His communications thus assured, Napoleon now threw off all disguise. He first inveigled the Royal Family into meeting him at Bayonne on the pretence of settling their domestic disputes, and then, having got them in his power, compelled them to abdicate their pretensions to the throne, on which, in their stead, he placed his own brother Joseph!

But a terrible awakening was at hand. The people of the conquered kingdoms, stupefied at first, soon turned furiously upon their betrayers. Bloody insurrections broke out throughout the country, and on all sides the masses fiercely declared their determination to resist the French to the death, nor to cease their efforts until they had expelled them from the country. Well might Napoleon be startled by the savage energy of the passions that he had so wantonly evoked. "Whatever," says Napier, "was the real origin of the invasion of Spain, it was an act of violence repugnant to the feelings of mankind. Founded in violence, attended with fraud, it spread desolation throughout the Peninsula, and in the end proved calamitous to France, and destructive to Napoleon himself." The French themselves were burthened with a sense of its iniquity. The British, instinctively feeling that such perfidy must be followed by a just retribution, regarded it with a still stronger sentiment, and when appealed to for assistance by the outraged nations, granted it freely, in the sacred cause of patriotism and liberty. Money, guns, munitions of war, stores and clothing of every

* "Thus in a time of profound peace, a foreign force was suddenly established in the Capital, on the communications, and in the principal fortresses: its chief (Murat) was admitted into the Government, and the nation was laid prostrate, without a blow struck, a warning voice raised, or a suspicion excited, in time to resist an intrusion on which all gazed with stupid amazement."—*Napier, I, 13.*

"The success with which their dishonourable stratagems were crowned was such as almost to exceed belief, and such as could not have occurred except in a monarchy debilitated by a long period of despotic misrule."—*Alison, VII, 277.*

"It was that unhappy war in Spain which ruined me. The results have irrevocably proved that I was in the wrong. * * * * If I could have foreseen that that affair would have caused me so much vexation and chagrin, I would never have engaged in it. But after the first steps were taken, it was impossible for me to recede."—*Napoleon.*

what has been good fortune for one, has been bad fortune for the other. No doubt history affords many instances of skilful strategy successfully planned, of marches and manœuvres splendidly and punctually carried out with a fixed purpose, and of battles resolutely fought, and gloriously won, as the result of prescient and able combinations: but probably there is no campaign, taken as a whole, in which Fortune has not intervened, and contributed her share to success or failure, to victory or defeat. I can only say—Happy is the Commander who has fortune on his side, and thrice happy he who has known in his hours of leisure how to prepare himself for the stern realities of war, who has fortified himself for every event by earnest study and trained reflection, and who has schooled himself not to depend upon Fortune, but to be ready to meet her more than half-way when she is gracious, and to look her in the face with undaunted mind when she is disposed to frown.

In the campaign of which I am now going to try and give you a sketch, Fortune played such a frequent and such an important share, that I am afraid you will almost think that this lecture has been selected to be a continuation in some sort of that which I gave you in July. But I can assure you it is not so. I have chosen it because it is the opening scene of a war which was the most glorious, whether we consider the motives that prompted us to enter on it, or the achievements of our gallant soldiers in it while it lasted, in which we have ever been engaged: a war of which Napoleon said afterwards at St. Helena—"It was *this* war that was my ruin. All my misfortunes dated from that fatal undertaking. It divided my strength: it multiplied my cares: it complicated my embarrassments: and it opened a school to English soldiers. It is *I* who made the English Army, in the Peninsula!" I have also selected this campaign of Corunna, because even without considering to what great events it was the introduction, it is one full of situations of intense dramatic interest: and while it shows what are the uncertainties of war, what are the terrible trials and difficulties of war, and what dreadful and disastrous consequences must result from any relaxation of discipline during the operations of war, it teaches also how uncertainties may be faced with calmness, how trials and difficulties may be met and overcome by resolution and courage, and how even indiscipline, and insubordination, may be atoned for by valour in the field. Above all, the campaign of Corunna deals with the deeds of British troops. It exhibits their failings, and

their battles for them, should furnish *their* troops now with all the necessaries, and equipments, for carrying on the war!

It is clear, therefore, that Sir Arthur Wellesley had before him a task of exceptional difficulty, one requiring infinite judgment and patience, as well as skill, firmness, and courage, to carry to a successful issue. To add to his embarrassments, the mortifying intelligence reached him just before he effected a landing on the shores of Portugal, that he had been superseded in the Command-in-Chief of the forces now assembling by Sir Hew Dalrymple: and not only that, but that General Sir Harry Burrard had been appointed 2nd-in-command: and that Sir John Moore, who was also his senior, was also on his way to join. On many men such news, arriving at such a moment, would undoubtedly have exercised a paralysing effect, but Sir Arthur's mind was cast in too heroic a mould to be perturbed by the announcement. While he did not in consequence of it relax his activity one whit, he wrote at once to the Minister, Lord Castlereagh, to say—"Whether I am to command the army, or not, I shall do my best to ensure its success: and you may depend upon it, that I shall not hurry the operations, or commence them one moment sooner than they ought to be commenced, in order that I may acquire the credit of the success."

With these noble sentiments animating him, but in the difficult position which I have sketched, Sir Arthur commenced his first campaign in the Peninsula, the campaign of Vimeiro, which, notwithstanding that it was brilliant and successful beyond all expectation, led to the re-call of himself, and his chiefs, Sir Hew Dalrymple and Sir Harry Burrard, to appear in England before a Court of inquiry, for reasons which I shall describe only very briefly because it is not the campaign of Vimeiro, but the campaign of Corunna, which immediately succeeded it, with which we are concerned this afternoon.

The objective of the British force, which was now about to measure its strength with the French under Junot, was of course Lisbon, but to attempt a landing here would have been hazardous in the extreme, for it was defended by powerful forts, and a strong garrison, and the approach is rendered specially dangerous by the heavy surf at the mouth of the Tagus. For these reasons, the little fort of Figueras, on the Mondego river, was selected. It had been captured from the French only a short time previously by the Spaniards, and was at this time held by a party of 300 English marines, so that a landing could be effected here without opposition. Between the 1st and the 5th August, 1808, the disembarkation of Sir

and unconquerable. In 1805, Napoleon had made vast preparations to cross the Channel, and attack her on her own soil, and to those who would like to have some idea of the great camp formed for this purpose at Boulogne, I would recommend a perusal of a recent novel by Dr. Conan Doyle, entitled "Uncle Bernac," in which will be found quite a clever sketch of what was going on there, and of the Emperor himself, and of the great men by whom he was surrounded, at that time. But this scheme of invasion was frustrated by the vigilance and exertions of the British Fleet under Nelson, and when the disaster of Trafalgar on the 21st October, 1805, had destroyed the last hope of carrying the war against England into British territory, Napoleon formed the design of ruining the trade of the country by shutting English ships out of every port in Europe. By his famous Berlin Decree (21st November, 1806) the British Islands were declared by him to be in a state of blockade, and all correspondence, and commerce, with them was absolutely prohibited: all trade in English goods was entirely forbidden, and no ship coming direct from Britain, or from a British Colony, was allowed to enter any European port.

Now it is easy to understand that the harsh restrictions of an enactment, so all-embracing as this, must have imposed hardships, injustice, and serious loss, not only on England, against which they were aimed, but on all those countries, particularly maritime countries, which were bound, through terror of Napoleon, to observe, and enforce them. Yet most of the States of Europe stood, and with good reason, in such fear of the Emperor, that, at all events openly, they dared not oppose his will in this matter. There was, however, one exception—Portugal, where British influence was still paramount. Portugal still continued to carry on a profitable trade with England, and through her ports, and through Gibraltar, English goods were steadily passed into Spain.

Here, then, was for Napoleon ample excuse for fixing a quarrel on Portugal. But his relations with Spain must be considered too. The treaty of Tilsit just signed (July, 1807), afforded him leisure to turn his attention now to this country, which was distracted at this period by the unhappy strifes and intrigues, perpetually recurring between the weak King (Charles IV.), his son Ferdinand, and the Minister, the Queen's favourite, Godoy, and their respective partisans and backers. For some time past, Napoleon had considered Spain only lukewarm in her professions of friendship and support, and had been uneasy lest she should, with Portugal, unite with

England against him; an alliance which, having regard to England's command of the sea, and to the vulnerability of France if attacked by these allies from the South, would place him in an embarrassing situation. He was glad, therefore, of any pretext to interfere in her affairs, and when the unscrupulous Godoy secretly proposed to him the conquest and partition of Portugal, promising the aid of Spain, on the condition that a share of the spoil should be set apart for himself, the Emperor eagerly adopted the suggestion, and determined to seize the opportunity thus offered to arbitrate (which he had been asked to do), to some purpose, in the domestic squabbles which still disgraced the Court of Spain.

His first step was to persuade the King, through the influence of Godoy, to enter upon a secret treaty with himself. (The Treaty of Fontainebleau, 27th October, 1807.) This treaty was one of the blackest treachery towards Portugal. By it, a French army was to be permitted to enter Spain: a Spanish army was to join it: and the combined armies were then to seize Portugal, which was to be wiped out of the map of Europe (as Poland had been in 1794) and divided up between France, and Spain, and Godoy! Arrangements to carry out this programme were forthwith made. It was quite enough that Portugal had disregarded the Berlin Decree, and that afterwards, when peremptorily ordered (as proof of her friendship with France) to declare war against England, she had dared to venture on a remonstrance. Before even the Treaty of Fontainebleau was signed, a French Army under Junot, already collected at Bayonne, was launched across the frontier, and hurried through Spain to Lisbon, regardless of the sullen attitude of the Spaniards, who *as a nation* cared little for promises made by the corrupt Court at Madrid, and viewed this invasion with well-founded suspicion: and heedless of the difficulties and hardships encountered on the road which reduced the troops to such straits,* that by the time they

* "The hostility of the Spaniards, the forced marches which the soldiers were compelled to make, and the excessive severity of the rains, which fall in that country at that period of the year, with all the violence of the tropics, soon reduced the army to the most frightful state of disorder. * * * Discipline was soon at an end.

* * * Many battalions subsisted for days together on nothing but chesnuts: the soldiers, drenched from head to foot, lay down on the way side without food or shelter: and this fine army, 26 000 strong when it left Bayonne, amounted when it reached Abrantes in Portugal, only to 4,000 stragglers, half of them without arms!"—*Alison, VII, 267.*

"It is impossible," says *Thiébault*, who was an eye-witness, "to give an idea of the sufferings of the army. * * * It was on the verge of dissolution: it was on the point of disbanding altogether: the General-in-Chief was within a hair's-breadth of being left without any followers! But the orders of Napoleon to Junot were peremptory, and admitted of no hesitation:—'On no account halt in your march, even for a day. The want of provisions could be no reason for doing so, still less the state of the roads. *Twenty-thousand men can march and live anywhere, even in a desert.*'"

reached Portugal "they resembled rather the fugitives who had escaped from a disastrous retreat, than the proud array which was to overturn a dynasty, and subdue a kingdom."

At this juncture, the Portuguese might easily have risen against the French and overwhelmed them. But unhappily they did not dare. On the one hand, they were in terror of Napoleon, of whose far-reaching power Junot's Corps (however miserable its condition at the present moment) was, they well knew, only the advanced-guard: and on the other, submission to the Emperor, and hostility to England, meant for them the destruction of their commerce, and the instant loss of all their colonies. They were, in truth, between the devil and the deep sea, and while they still hesitated, Junot entered Lisbon without opposition, announcing that he came by Napoleon's orders as a friend and ally, his mission being only to exclude the English from Portugal, and "to make common cause with their well-beloved sovereign against the tyrant of the seas"!* The "well-beloved sovereign" did not, however, deem it prudent to await the arrival of the French, or to trust himself to the tender mercies of their Emperor, and just before Junot entered the capital, he with all his family and adherents set sail for the Brazils, encouraged and supported by the British Ambassador (Lord Strangford, at this time), who assured him that whatever Portugal might have said against England, under pressure by Napoleon, nothing should abate the friendship of his old ally if he would still avail himself of it.†

In the meantime, Junot quietly took military possession of the country, and made secure the principal arsenals, forts, and batteries: while the Spaniards, co-operating as arranged, occupied Elvas in the south, and Oporto in the north, without encountering resistance. This was in the end of November 1807. The Portuguese army was next partly disbanded, and partly sent to France, and the unhappy people now at the complete mercy of the invaders, realised at last that they had been betrayed and ruined, and were fated henceforth to be simply a province of France.

* "In the *Moniteur* meantime had appeared the ominous line 'The house of Braganza has ceased to reign': and with the paper containing that announcement of the fate which awaited them, Lord Strangford transmitted to the Prince Regent copies of the secret treaty and convention of Fontainebleau, by which the portions assigned to each of the partitioning Powers were assigned."—*Alison*, VII, 269.

† "This celebrated emigration was beneficial to the Brazils, gave England great commercial advantages, and placed Portugal at her disposal for the approaching conflict: but it was disgraceful to the Prince, insulting to the brave people he abandoned, and impolitic."—*Napier*, I, 90.

So much for Portugal. But the turn of Spain was only deferred for a brief space. Under the treaty of Fontainebleau, a second army, 53,000 strong, was assembled at Bayonne, ostensibly designed to support the first under Junot. These troops were gradually advanced into Spain by routes which enabled them to occupy Madrid, and strong strategic positions throughout the country, and to possess themselves by various artifices of the great frontier fortresses of St. Sebastian, Pampeluna, Barcelona, and Figueras.* His communications thus assured, Napoleon now threw off all disguise. He first inveigled the Royal Family into meeting him at Bayonne on the pretence of settling their domestic disputes, and then, having got them in his power, compelled them to abdicate their pretensions to the throne, on which, in their stead, he placed his own brother Joseph!

But a terrible awakening was at hand. The people of the conquered kingdoms, stupefied at first, soon turned furiously upon their betrayers. Bloody insurrections broke out throughout the country, and on all sides the masses fiercely declared their determination to resist the French to the death, nor to cease their efforts until they had expelled them from the country. Well might Napoleon be startled by the savage energy of the passions that he had so wantonly evoked. "Whatever," says Napier, "was the real origin of the invasion of Spain, it was an act of violence repugnant to the feelings of mankind. Founded in violence, attended with fraud, it spread desolation throughout the Peninsula, and in the end proved calamitous to France, and destructive to Napoleon himself." The French themselves were burthened with a sense of its iniquity. The British, instinctively feeling that such perfidy must be followed by a just retribution, regarded it with a still stronger sentiment, and when appealed to for assistance by the outraged nations, granted it freely, in the sacred cause of patriotism and liberty. Money, guns, munitions of war, stores and clothing of every

* "Thus in a time of profound peace, a foreign force was suddenly established in the Capital, on the communications, and in the principal fortresses: its chief (Murat) was admitted into the Government, and the nation was laid prostrate, without a blow struck, a warning voice raised, or a suspicion excited, in time to resist an intrusion on which all gazed with stupid amazement."—*Napier, I, 13.*

"The success with which their dishonourable stratagems were crowned was such as almost to exceed belief, and such as could not have occurred except in a monarchy debilitated by a long period of despotic misrule."—*Alison, VII, 277.*

"It was that unhappy war in Spain which ruined me. The results have irrevocably proved that I was in the wrong. * * * If I could have foreseen that that affair would have caused me so much vexation and chagrin, I would never have engaged in it. But after the first steps were taken, it was impossible for me to recede."—*Napoleon.*

description, in immense quantities, were poured into the Peninsula without delay, and in July 1808, an expedition was despatched to its shores under Sir Arthur Wellesley, to commence that series of glorious campaigns, which under his leadership were destined, after a desperate struggle extending over five years, to clear Portugal of the hated enemy, to chase his proud battalions across Spain, and finally to drive them over the Pyrenees, "back to France with countless blows," never again to disturb the peace on this side of that mountain barrier.

PART II.

On the 12th July, 1808, Sir Arthur Wellesley sailed from Cork with 9,000 men, to open the campaign in Portugal. Great undertakings have often sprung from very small beginnings, and it was with this insignificant force that England, with a light heart, first entered the arena against the legions of France. But other troops were soon on their way to the scene of the coming strife. Sir John Moore, who with 10,000 men had been previously despatched on a vain mission to Goteborg, to help the Swedes against Russia, was recalled in haste, and sent round to the Tagus: General Spencer, with 5,000 more, was ordered up from Gibraltar: and a brigade of about 4,000 men, under General Anstruther, was collected at Ramsgate, and was very soon ready to start for the scene of operations. Of course, the active co-operation of the Portuguese, and of the Spaniards, was reckoned upon, and their assistance, in the matter of transport and supplies, was confidently expected. But it was long before these expectations were realised. Notwithstanding that they had themselves invoked their aid, the Portuguese seemed to doubt the ability of the English to tackle the common enemy. A conviction of French invincibility pervaded the people and the troops, while as yet the English had done nothing to prove either their courage, or their resolution in the field, which the natives seemed inclined to measure solely by their own. The Junta, therefore, anxious to preserve their own army (such as it was, at this time) intact, until they could see how things were going to turn out, put every obstacle in the way of co-operation with Sir Arthur Wellesley, notwithstanding the appeals made by him to their feelings of honour and patriotism; and far from helping him with supplies, they actually demanded that those who had crossed the sea to fight

their battles for them, should furnish *their* troops now with all the necessaries, and equipments, for carrying on the war!

It is clear, therefore, that Sir Arthur Wellesley had before him a task of exceptional difficulty, one requiring infinite judgment and patience, as well as skill, firmness, and courage, to carry to a successful issue. To add to his embarrassments, the mortifying intelligence reached him just before he effected a landing on the shores of Portugal, that he had been superseded in the Command-in-Chief of the forces now assembling by Sir Hew Dalrymple: and not only that, but that General Sir Harry Burrard had been appointed 2nd-in-command: and that Sir John Moore, who was also his senior, was also on his way to join. On many men such news, arriving at such a moment, would undoubtedly have exercised a paralysing effect, but Sir Arthur's mind was cast in too heroic a mould to be perturbed by the announcement. While he did not in consequence of it relax his activity one whit, he wrote at once to the Minister, Lord Castlereagh, to say—"Whether I am to command the army, or not, I shall do my best to ensure its success: and you may depend upon it, that I shall not hurry the operations, or commence them one moment sooner than they ought to be commenced, in order that I may acquire the credit of the success."

With these noble sentiments animating him, but in the difficult position which I have sketched, Sir Arthur commenced his first campaign in the Peninsula, the campaign of Vimeiro, which, notwithstanding that it was brilliant and successful beyond all expectation, led to the re-call of himself, and his chiefs, Sir Hew Dalrymple and Sir Harry Burrard, to appear in England before a Court of inquiry, for reasons which I shall describe only very briefly because it is not the campaign of Vimeiro, but the campaign of Corunna, which immediately succeeded it, with which we are concerned this afternoon.

The objective of the British force, which was now about to measure its strength with the French under Junot, was of course Lisbon, but to attempt a landing here would have been hazardous in the extreme, for it was defended by powerful forts, and a strong garrison, and the approach is rendered specially dangerous by the heavy surf at the mouth of the Tagus. For these reasons, the little fort of Figueras, on the Mondego river, was selected. It had been captured from the French only a short time previously by the Spaniards, and was at this time held by a party of 300 English marines, so that a landing could be effected here without opposition. Between the 1st and the 5th August, 1808, the disembarkation of Sir

Arthur Wellesley's troops was successfully completed: and most opportunely at this moment, General Spencer arrived with his brigade from Gibraltar, so that Sir Arthur found himself now with some 12,300 men available at once for an advance.

With this force, and supported by a very small Portuguese contingent, he forthwith commenced his march on Lisbon. On the 17th he encountered the enemy for the first time, between 5,000 and 6,000 strong, under General Laborde, posted in a strong position at Roliça. Attacking without hesitation, a sharp fight ensued in which either side lost between 500 and 600 in killed and wounded, and in which the French, whose numbers were very inferior to the British, were driven from the field, but retired in excellent order, although their General, Laborde, was amongst the wounded.

On the next day, General Anstruther's brigade, 4,000 strong, appeared off the coast, so marching by the sea in order to keep touch with the fleet, and cover the landing of the troops, Sir Arthur advanced as far as Vimeiro, and there waited until this reinforcement joined him on the 19th. His army then consisted of 16,000 men, and 18 guns, and judging that he was now strong enough to attack Junot, who had himself come out from Lisbon to meet him, and was established at Torres Vedras, only 9 miles off, he was proceeding to do this, when at this juncture, as Napier puts it, "the ministerial arrangements which provided three Commanders-in-Chief began to work." General Sir Harry Burrard suddenly arrived off Vimeiro in a frigate on the 20th, and without landing, ordered him to stand fast where he was, until the arrival of Sir John Moore, who with 10,000 men was now close at hand.

It was in vain that Sir Arthur interviewed Sir Harry Burrard, and urged on him the expediency of continuing offensive measures, and of following up without further delay the success already gained at Roliça on the 17th. He proposed to Sir Harry that Sir John Moore should land at Figueras on the Mondego, as his own troops had done, and thence march direct on Santarem, thus cutting off Junot's retreat from Lisbon, while he pressed him himself in front. But the advantages of this sound combination seemed to the cautious Chief to be out-weighed by its risks, and he would not consent to it, so Sir Arthur returned to his camp depressed and moody, with the conviction that a great and legitimate opportunity was being wilfully missed, through want of a little daring and enterprise.

However, destiny gave the hero of Assaye the opportunity of distinction which the caution of his superior officer would

have denied.* Junot was in fact as anxious to bring matters to the issue of a battle as Sir Arthur himself was. He was short of provisions, and he knew that the population of Lisbon was ripe for revolt. Hence an early victory was essential to the security of his position, and delay would be almost as fatal to him as defeat. Accordingly, making a tedious night march from Torres Vedras on the 20th, he appeared before the British position early on the 21st, and attacking vigorously, commenced the battle of Vimeiro, at about 7 A.M.

The result of the fighting was a most decisive victory for the British, and if it had been followed up at once on the lines proposed by Sir Arthur, Junot must have been cut off from Lisbon, and would certainly have lost all his artillery and baggage, and many thousand prisoners. But again Sir Harry Burrard, who had landed during the day, and had now assumed command, interfered, and decided that it would be prudent to halt at Vimeiro until the arrival of Sir John Moore. This caution saved Junot, who was thus enabled to rally, and re-form his army, and, covered by his cavalry, he drew off from the battle-field in good order, retired to Torres Vedras again, and by night-fall the relative positions of the two armies were the same as on the evening before.

But Sir Harry Burrard's control was soon over. Early on the morning after the battle, Sir Hew Dalrymple landed, and assumed the Command-in-Chief; and thus, as Napier points out, "in the short space of twenty-four hours, during which a battle was fought, did the army fall successively into the hands of three men, coming from the ocean with different views, habits, and information, and without any previous opportunity of communing even by letter: and they were brought together at a moment when it was more than probable they must disagree."

However, most fortunately at this crisis, Junot, realising that the city of Lisbon was ripe for tumult and insurrection, proposed an armistice to discuss terms on which hostilities might cease. Sir Hew gladly agreed, and the result was the famous Convention of Cintra, signed on the 30th August, 1808, and probably so called because it was concluded at Lisbon!† By this convention, the French consented to give

* *Camp at Vimeiro, 22nd August, 1808.*—"Sir H. Burrard came here on the night of the 20th, but did not land, and as I am the most fortunate of men, Junot attacked us yesterday morning with his whole force, and we completely defeated him."—*Sir Arthur Wellesley to the Duke of Richmond.*

† "The armistice, the negotiations, the Convention, the execution of its provisions were commenced, conducted, concluded, at the distance of 30 miles from Cintra, with which place they had not the slightest connection, political, military, or local! Yet Lord Byron has sung that the Convention was signed at the Marquis of Marialva's house in Cintra: and the Author of the '*Diary of an Invalid*,' improving upon the poet's discovery, detected the stains of ink spilt by Junot upon the occasion!"—*Napier, I, 161.*

up all the fortresses in their possession, and to evacuate Portugal altogether, on the condition that with their arms, artillery, and baggage, they should be conveyed by sea in safety to France. These terms were duly ratified, and executed. By the end of September, the last of their troops had left the country, and Sir Hew Dalrymple had time to consider what the next development of the situation would be.

He was not left long in doubt. As soon as the terms of the Convention of Cintra were known in England, a storm of indignation arose against all who had any hand in it, for it was held by those who knew nothing of the circumstances, and therefore were eminently qualified to form an opinion, that Junot should have been forced into an unconditional surrender, and that to permit his escape, with his army, and stores, was a disgrace to all concerned.* The public clamour was so violent that a Court of Inquiry was assembled at Chelsea to satisfy it, and Sir Hew Dalrymple, Sir Harry Burrard, Sir Arthur Wellesley, and most of the other Generals engaged at Vimeiro, were called before it. They were all, however, acquitted of any blame, but for the present none of them returned to Portugal, where Sir John Moore now remained in chief command. He had landed while the Convention of Cintra was being arranged, and the troops he had brought with him raised the strength of the British army now in and about Lisbon to about 32,000 men.

Napoleon's view of the Convention of Cintra is not without interest. He thought it a gross dereliction of duty on the part of Junot to agree to it, and considered that its terms were most advantageous to the English. "I was going," he said, "to send Junot to a council of war, for his share in it, when fortunately the English tried *their* Generals, and so saved me the pain of punishing an old friend."

PART III.

Portugal having thus been cleared of the enemy by the operations described, attention was now turned to Spain: and the English Government being determined to prosecute the war with vigour, Sir John Moore was ordered early in October to take the field in Northern Spain with 20,000 men, leaving

* "The Editors of the English Daily Press * * * broke forth with such a torrent of rabid malevolence, that right and justice were overborne, and the voice of truth stifled by their obstreperous cry. Many of the public papers were printed with mourning lines round the text which related to Portuguese affairs: all called for punishment: some talked of death to the guilty * * * the infamy of the convention was the universal subject of conversation: a general madness prevailed."—*Napier, I, 160.*

the rest of his force to preserve order in Lisbon, and defend Portugal. At the same time, he was instructed that 10,000 men, under Sir David Baird, would be sent to join him at once, *vid* Corunna, and that after junction with Baird, he must co-operate with the Spanish armies, and be guided by circumstances as to the course he should pursue.

These instructions were somewhat vague, but Sir John Moore decided that he would best carry them out by a concentration at Salamanca to begin with, and accordingly he started for that place himself on the 26th October, and sent word to Sir David Baird, who landed at Corunna early in November, to join him there without delay. Rarely has a General set out on an expedition beset with such difficulties as those which hampered Sir John Moore on this occasion. With a raw army, and an inexperienced staff; with allies not merely differing from the British in customs, language, and discipline, but divided by jealousies, and blinded by arrogance; with the Civil authorities who should have helped him culpably apathetic, and contemptibly inactive; and finally, with a depleted treasure chest, and miserably deficient transport; he was launched, by his instructions from England, into an unknown country at the commencement of the wettest and worst season of the year, to confer and concert measures with a Spanish General-in-Chief who did not exist,* and to meet an enemy strong in numbers, seasoned by experience, and led by Generals already renowned in war.

Sir David Baird's plight at Corunna was little better, though his burden of responsibility may have been something less. He had neither transport nor money. The local authorities were, in the words of Napier, "unfriendly, crafty, and fraudulent: the peasantry suspicious, rude, disinclined towards strangers, and indifferent to public affairs. A few shots only were required to render theirs a hostile instead of a friendly greeting."

Under these adverse circumstances was the campaign of Corunna commenced: and from operations undertaken with such insufficient means, and obstructed by such extraordinary difficulties, the Commander-in-Chief, oppressed by a thousand anxious cares, may well have augured unhappy results.

* No General-in-Chief was appointed to command the Spanish armies, nor was Moore referred to any person with whom he could communicate at all, much less concert a plan of operations. He was unacquainted with the views of the Spanish Government, and was alike uninformed of the numbers, composition, and situation of the armies with which he was to act, and those with which he was to contend. His own genius, and £25,000 in the military chest, constituted his resources for a campaign which was to lead him far from the coast and all its means of supply."—*Napier, I, 214.*

But before following further Sir John Moore's movements, we must turn to the French and Spanish side, and note their dispositions and plans at this period. It has already been described how bloody insurrections all over Spain had followed the usurpation of the Crown by Joseph. To assist in quelling these outbreaks, some 80,000 men had been despatched from France by the Emperor, and advanced to positions whence they could crush the insurgents, which at first they did, treating them always with pitiless cruelty whenever they fell into their hands. But the spirit of the revolt against the French invasion was too universal and too strong to be suppressed by local successes. Fanned by promises of English support, and by successes achieved by the Spaniards themselves in Aragon, Catalonia, and Valencia: and above all by a great victory gained at Baylen in July, where 18,000 French, under Dupont, surrendered unconditionally to Castaños, it soon burst into violent flame from one end of the Peninsula to the other. The disaster of Baylen was succeeded by a severe defeat at Saragossa, and by serious reverses in other quarters. The triumphant cry of the Spaniards was now heard throughout the land, and Joseph, thoroughly frightened, evacuated Madrid in haste, and removing his head-quarters to Burgos, assembled his Divisions behind the line of the Ebro, and there awaited succours from his brother.

Napoleon, needless to say, fully grasped the gravity of the situation. Whatever contempt he might feel for the military power of Spain, the facts were not to be gainsaid that the whole nation was in arms against him, that England had planted a firm foot on the Peninsula and was threatening him now by land as well by sea, and that the crisis was being closely watched by the Continental Powers "whose pride he had shocked without destroying their strength." Roused to action by these considerations, he lost no time in collecting a vast army with which he designed to summarily crush insurrection, repel invasion, and restore order. By the end of September he had assembled upwards of 250,000 men for the contemplated operations, included amongst whom were the Imperial Guard, many veteran battalions of the grand army, and 40,000 of the flower of his cavalry. Addressing these troops, according to his custom on the eve of a great enterprise, in burning words, he launched them on their journey, and at the very time that Sir John Moore with his modest 20,000 men was leaving Lisbon (26th October) these hosts of Imperial France were pouring through the Pyrenees into Spain. In the

first week in November they were joined by the Emperor in person, who had said farewell to Paris with the words—"I go to put myself at the head of my armies, and with the aid of God, to crown at Madrid the King of Spain, and to plant my eagles on the tower of Lisbon"!

And this great programme was indeed carried out. His arrival on the scene infused as usual life and energy into every one. Under his vigorous leading, the Spaniards were at once attacked and routed in every direction. Giving them no time to rally or recover, he detached a corps under Soult to watch the Carrion river and protect his right flank, and rapidly marching southwards himself, he stormed the Somo-sierra Pass on the 30th November* and on the 4th December, entered Madrid in triumph, and once more established his worthless brother on the throne of Spain.

We are now in a position to return to Sir John Moore, and follow his fortunes in the perilous enterprise with which he was charged.

He had made a start, as already told, on the 26th October. Ill-prepared as he was for the arduous task before him, he judged it right to admit nothing as an excuse for delay. "The army," he wrote, "runs the risk of finding itself in front of the enemy with no more ammunition than the men carry in their pouches: but were I to await until everything is ready, the troops would not be in Spain till the spring, and I trust the enemy will not find out our wants so soon as they will feel the effects of what we have." It had been his intention to march to Salamanca *via* Coimbra, Almeida, and Ciudad Rodrigo, the guns and cavalry moving by Abrantes, and Alcantara. But hardly had the march commenced, when it was ascertained that the roads north of the Tagus were impracticable for artillery, so reluctantly and with many misgivings, he was compelled to send the cavalry, 1,000 strong, 24 guns (all he had, except one battery retained with himself) and the ammunition columns, with 3,000 infantry as escort, *via* Elvas, Merida, Almaraz, the Escorial Pass, and Arevalo. This column was under the command of Sir John Hope, an officer "whose capacity and firmness qualified him for the most important commands."

By the 20th of November, Sir John Moore had accomplished his arduous march of 350 miles to Salamanca, but it was too

* The Pass was captured by a charge of Polish Cavalry! Napier describes it (Vol. I, 267) and says of it—"This exploit, so glorious to one party, so disgraceful to the other, can hardly be matched in the annals of war."

See also: Sir Evelyn Wood's "*Achievements of Cavalry*, page 43," for a detailed and stirring description of this feat of arms.

late now to succour the northern provinces of the Peninsula, or to co-operate with the Spaniards, whose ill-organised armies had already been dispersed by the disciplined legions of Napoleon. Baird* at this time had only reached Astorga, but his rear was still far behind beyond Lugo, and Sir John Hope† was between the Escorial and Talavera. Moore's position was therefore an extremely critical one. Whatever efforts he might make, or whatever risks he was prepared to run, while there was a chance of effective co-operation with the Spanish armies in the field, it was simply courting disaster to continue his forward movement now that those armies were scattered, for by himself he well knew he was quite unable to cope with the huge forces that Napoleon was leading against him, and which were now rapidly closing in on him on every side. There was only one right course to adopt under the circumstances, *viz.*, to fall back on Portugal while there was yet time, and this he resolved to do.

But this determination to retreat created indignation throughout Spain. By the Junta, and by the Ambassador, Mr. Frere, ‡ Sir John Moore was at once assailed by loud and vehement remonstrances. It was represented to him that while Madrid was preparing for a gallant resistance, while Castanos and Romana still fronted the enemy in the North, and reinforcements were arriving daily from the southern provinces, it would be improper and impolitic in the extreme to quench the ardour and enthusiasm that were kindling by withdrawing his support and commencing a movement in retreat. His own officers and men too, ignorant of the just causes by which he was influenced, openly murmured against his resolution, and loudly demanded to be led against the enemy. While clamours of this kind would never have induced Moore to swerve from the path marked out for him by reason and duty, yet one fact standing out amid the mass of conflicting and exaggerated statements pressed upon his attention, seemed

* "Sir David Baird had no money * * * and wanting all equipments essential they only marched by half battalions, conveying their stores on country carts hired from day to day."—*Napier, I, 219.*

† "Sir John Hope's column had been compelled, from the want of money and supplies, to move in six divisions, each a day's march behind the other." It was only by great resolution, intrepidity, and skill, that it was brought safely through to Salamanca.—*Napier, I, 286.*

‡ Mr. Frere had succeeded Lord Strangford. "He was a person of mere scholastic attainments, very ill qualified for the duties of his situation, which at this time required temper, sagacity, and judgment. * * He had come out to Spain impressed with false notions of what was passing in that country, and tenaciously clinging to the pictures of his imagination, resented the intrusion of reason, and petulantly spurned at facts. * * * He was ever prompt to interfere with, and eager to control the military combinations of the General."—*Napier, I, 288.*

to be worthy of special consideration. This was that the city of Madrid was actually resisting, and might be depended upon to make a stubborn and prolonged defence.* This was an event full of promise and hope: and as every day brought fresh assurances of the spirit and enthusiasm that prevailed, and as moreover his cavalry and artillery under Sir John Hope had now successfully joined him, he determined, at whatever peril to himself, to make one great bid for fortune, and forthwith conceived, and proceeded to carry out with vigour, a design which Napier describes as "a daring enterprise stamped with the seal of genius, political and military."

This was to advance against the comparatively weak corps of Soult on the Carrion river, and so strike at the Emperor's communications, and line of supply through Burgos. The effect of this bold movement should be to suspend Napoleon's advance on Portugal, afford succour to Madrid, and give time to the South to organise its defences. As for the danger to his own army, Moore saw it well, and appreciated it to the full;† but "he knew also the martial qualities of his soldiers, he felt the pulsations of his own genius, and the object being worth the deed, he dared essay it even against Napoleon."

His mind made up, he lost no time in carrying out his plan, and on the 11th December, the movement was commenced. Fresh orders were sent to Sir David Baird to quicken his march, and ensure his co-operation, but at the same time, in view of a retreat later, he was directed to form magazines at Benevente, Astorga, Villa Franca, and Lugo; and as it was now finally settled that if the army did retreat, it should be *viâ* Galicia, and not through Portugal, the transports were ordered round from Lisbon to Vigo. Moore's own march was directed on Toro and Tordesillas, which places were occupied by him on the 13th, when an intercepted despatch fell into his hands, and made him once more anxiously consider the situation. This despatch was from the Chief of the Staff, Berthier, to Soult. From it Moore learned that Madrid had fallen on the 4th December, after a resistance of only two days: that one French corps was already at Talavera on its

* "Upon this chance I have stopped Baird's retreat, and am taking measures to form our junction. We are bound not to abandon the cause as long as there is hope."—*Sir John Moore's Journal, Salamanca, 9th December 1808.*

† "I was aware that I risked infinitely too much, but something, I thought, was to be risked for the honour of the service, and to make it apparent that we stuck to the Spaniards long after they had themselves given up their cause as lost."—*Sir John Moore's Journal, Sahagun, 24th December 1808.*

way to Badajos and Lisbon, that another was marching on Saragossa, and another on Burgos: and that Soult was ordered to occupy Leon, Benevente, and Zamorra, and threaten Galicia. This was startling news to a General who had been assured that Madrid would hold out for weeks, and prove a rallying-point for the devoted efforts of the provinces. But nevertheless, Moore determined to continue his advance against Soult, for the intercepted despatch made no reference to his own movements, of which it was evident Napoleon, and Soult too, at this time, were in complete ignorance. There was therefore still a chance of surprising and defeating Soult before the Emperor could come to his assistance; and deeply impressed, as he was, with the importance of drawing Napoleon away from his march on Portugal, and the southern provinces of Spain, he resolved, with glorious hardihood, to make a dash at Soult on the Carrion river, while there was yet a chance of catching him unprepared.

I must interrupt my narrative here to draw your attention to a remarkable instance of the fortune of war in connection with this intercepted despatch of which I have spoken. It was carried by a French officer without escort, who rode post. At a way side inn he quarrelled with the landlord about a change of horses, and in the *fracas* that ensued he lost his life. An English Intelligence officer, Captain Waters, happened to come along at this juncture, heard of the murder, and immediately purchased the despatch from the inn-keeper for twenty dollars! In this purely accidental way, this important document fell into Sir John Moore's hands. Napier remarks that "it was the more valuable, as neither money nor patriotism had hitherto induced the Spaniards to bring any intelligence of the enemy's situation: each step the army had made was in the dark."

PART IV.

But to resume. On the 20th December, Moore and Baird at last effected their junction at Mayorga, and now advanced together against Soult. On the evening of the 23rd, they had approached him closely at Soldana, and were preparing to attack him, when alarming news reached Sir John Moore, and was confirmed by his scouts, of the march of a large army against him *from the South*. Instantly his offensive move against Soult was broken off, and the RETREAT TO CORUNNA commenced on the 24th, greatly to the mortification of the



BATTLE OF CORUNNA,
16TH JANUARY 1809.

Scale of Miles.

troops, who were in splendid condition at this time, and in spirits which had been raised to the highest pitch by several brilliant exploits of the cavalry, who had already had several affairs with the enemy, and had on each occasion beaten them handsomely, and captured many prisoners.

But it was no time to trifle, or delay. The army, coming from the South, was the main army, upwards of 50,000 strong, under the leadership of the great Emperor himself. On the 21st of December, he had learned for the first time where Moore was, and what he was doing. To surround and destroy the English was rightly judged by him to be of far more consequence now than to invade Portugal. Leaving 10,000 men therefore in Madrid to preserve order, he flew with all that remained to fall upon Moore. By the evening of the 22nd, he had assembled 50,000 men, and 150 guns, at the foot of the Guadarama range, and in the following two days, though violent storms prevailed, and the Escorial Pass was choked with snow, he had carried them across the mountains, and by the 26th, had reached Tordesillas. This was an extraordinary achievement, for in less than five days he had with this immense force accomplished more than 100 miles, including the passage of a snowy mountain pass in the depth of winter. His personal example, and influence,* and indomitable energy, alone enabled him to carry this operation through successfully.

So confident was Napoleon now of victory that from Tordesillas he wrote to Soult—"Our cavalry scouts are already at Benevente. If the English pass to-day in their position, they are lost. If they attack you with all their force, retire one day's march: the further they proceed, the better for us. If they retreat, pursue them closely."

But he was just too late. Sir John Moore, warned of his danger, though barely in time, was already in full retreat before Soult. On the 26th, he had crossed the Escla at Benevente, so closely pressed by the enemy that some of his

* "Deep snow choked the Passes, and twelve hours of ineffectual toil left the advanced guards still on the wrong side. The General commanding reported that the road was impracticable, but Napoleon placing himself at the head of the Column, on foot, and amidst storms of hail and drifting snow, led his soldiers over the mountains. Many men and animals died during the passage, which lasted two days, but the Emperor, personally urging on the troops with unceasing vehemence, reached Villa Castin, 50 miles from Madrid, on the 24th.—*Napier, I, 304.*

"Un guide de son escorte conduisant son cheval par la bride, il marchait en tête d'un bataillon d'infanterie. Parmi ces soldats d'élite un grand nombre avaient fait les rudes campagnes d'Austerlitz, d'Eylau, et de Friedland. Ils étaient tous attachés à leur Empereur. Pourtant, tel était à cet instant leur état d'esprit, résultat de la fatigue, et de la souffrance, qu'il terrifia Gonneville, qui marchait aux côtés de l'Empereur. 'Les Grenadiers,' dit-il, s'excitaient mutuellement à lui tirer un coup de fusil, et s'accusaient de lâcheté de ne pouvoir le faire! Lui entendait tout cela aussi bien que nous et n'avait pas l'air d'en tenir compte!"—*Mémoires d'un Aide-Major, Sébastien Blase.*

stragglers and baggage were cut off by their cavalry, and having halted for a couple of days to clear out the magazines, and organise transport (a halt which however necessary, might have been disastrous if a sudden flood in the river had not rendered it untordable for twenty-four hours), the retreat was resumed in haste upon Astorga, on the 29th, covered by the cavalry, who, before evacuating Benevente, were indulged in an exciting skirmish with six hundred horsemen of the Imperial Guard. In a brilliant charge made by the 10th Hussars under Lord Paget, which seems to have been timed to the moment, these chosen cavaliers of Napoleon were routed and overthrown with great slaughter—120 of them were killed and wounded, and 70 were taken prisoners, including a General of Division, Lefebvre-Desnouettes. It is believed that Napoleon was himself a witness of this incident from his head-quarters on the other bank of the river.

But this was the last beam of glory shed upon the English Army in this campaign until the sea was reached. From the day the retreat had commenced, insubordination had shown itself in the ranks, and the worst disorders had prevailed. In a march of only three days from the Cidion to the Esia, discipline had been relaxed to such a degree that already the officers had lost much of their authority over the men, and excesses fatal equally to the army and to the inhabitants had already commenced. It was a matter of importance to Moore to gain as rapidly as possible the mountainous country beyond Astorga, where he would be comparatively safe from the numerous and powerful French cavalry. But the forced marches which this effort entailed upon his troops demoralised them still more. Their condition became daily more deplorable. Frost and snow, thaws and rain and sleet, succeeded each other with merciless severity, and without intermission. The roads were broken up, the horses fell at every step, and waggons, ammunition, and supplies were abandoned at every turn. Even the military chest, containing £25,000 in dollars, was thrown over a precipice to escape conveyance for it could no longer be arranged. Worse than all, the "national vice of drunkenness here appeared in the most flagrant colours." The great wine vaults of Penamare and Val de Arca proved more fatal than the sword of the enemy, and when the grand rear-guard which always preserved its ranks unbroken, closed up the array, it had to force its way through a motley crowd of soldiers, stragglers and marauders, who reeled out of the houses in disgusting crowds, or lay stretched on the roadside, an easy prey to the enemy's cavalry which ever followed in close pursuit."

Amidst such shocking scenes, the army, on the 6th January, struggled into Lugo, and here Sir John Moore determined to stand and fight. The mere announcement of this intention was enough to restore the spirit of the troops. The confusion ceased at once, stragglers hastened to rejoin their colours, and the ranks were rapidly re-formed. On the morning of the 7th January, 1809, 19,000 men were drawn out in battle array impatiently awaiting the attack of the enemy. "A British army may be *gleaned* in a retreat," says one of its most experienced officers, "but it cannot be *reaped*. Whatever may be their misery, the soldiers will always be found clean at a review, and ready at a fight": and so the order to prepare for battle at Lugo acted like the wand of the enchanter, and in an instant, order, discipline, and willing subordination, were restored to the ranks.

Here, for a moment, we must return to the French, to explain that Napoleon was no longer in command of them in person. At Astorga on the 1st January,* he had received news that Austria, taking advantage of his absence, was again preparing to take the field against him, and was even meditating an invasion of France. Satisfied that very little effort was required now to complete the ruin of the English, and drive them into the sea, he intrusted the command from this point to Soult, and ordering the Imperial Guard to return to France, he set off himself for Paris, travelling so fast that "by the astonishing speed of his journey he frustrated some designs which the Spaniards had, it is said, formed against his person."

It was Soult, then, who found the English offering him battle at Lugo. A reconnaissance in force of their position, in which he was somewhat roughly handled, showed him that Sir John Moore's whole army was before him, and not merely a rear-guard. He resolved therefore to wait until his own troops had all closed up before attacking. But the 8th passed without his making any demonstration, and the English General could stay no longer. His halt had rested his men, and his offer to fight had restored their spirit, and to a great extent their discipline. But his supplies were running short, and there was only ammunition enough for one battle, and that must now be fought at Corunna to cover the embarkation. Further delay was therefore useless, and hoping to steal a march on the French, Sir John Moore

* "In ten days, and in the depth of winter, he had crossed the snowy ridge of the Guadarama, had traversed 200 miles of hostile country, and transported 50,000 men from Madrid to Astorga in a shorter time than a Spanish courier would have taken to travel the same distance!"—*Napier, I, 312.*

resumed his movement in retreat from Lugo at 10 P.M. on the night of the 8th, leaving his bivouac fires brightly burning to deceive the enemy.

But ill-fortune still pursued him relentlessly. Hardly had the march commenced when a violent tempest of wind and sleet arose, which not only distressed the men already exhausted by privations and hardships (greatly the result of their own misconduct), but also which scattered the bundles of straw which had been laid during the day to mark out the routes to be followed. In consequence, the Divisions, all but one, lost their way in the snow, and when day-light broke found themselves still in the neighbourhood of Lugo. This unfortunate accident, through the fatigue, disappointment, and depression of spirits, which it produced, again broke down the discipline of the men. The scenes of drunkenness and disorder witnessed at Bemibre and Villa Franca were repeated here, and the losses incurred in one short march out of Lugo were in consequence greater than all the previous losses during the retreat put together.*

The next day, the 10th, the army reached Corunna, but a fresh disappointment awaited the unfortunate Moore here, for the transports which had been ordered round from Vigo had not arrived. Adverse winds had delayed them, and it was not until the 14th that their friendly sails hove in sight. The embarkation of the sick and wounded was then commenced at once, and completed on the 15th. The artillery was put on board too, with the exception, of only six guns, as from the nature of the ground on which the battle must be fought, if the French attacked, it could be of little service. Finally, it was decided that, unless attacked in the meantime, the army itself should embark on the 16th.

It may be wondered why Soult delayed the assault so long. The simple truth is that the dreadful weather, and the bad roads, had fatigued and scattered his troops to an extent only less than they had affected the British, and it was not until the 15th that he had collected his Divisions, and was ready to attack. That evening the picquets on both sides were engaged, but it was not until 2 o'clock in the afternoon of

| | Total. |
|--|--------|
| * Lost at, or previous to the arrival of the (Cavalry . . . 05) | |
| army at the position of Lugo. (Infantry . 1,302) | 1,307 |
| Lost between the departure of the army (Cavalry . . . 6) | |
| from Lugo, and the embarkation at (Infantry . 2,627) | 2,633 |
| Corunna. | |
| GRAND TOTAL | 4,040 |

the 16th January that the battle of Corunna was commenced. The British were about 14,500 strong disposed as shown in the accompanying sketch: the French were not less than 20,000, and were supported by a powerful artillery.

There were no grand tactics displayed by either side at the battle of Corunna. Soult relying on the strength of his position, and his superiority in numbers, and in artillery, resolved to waste no time in manœuvres, and ordered a general assault straight to the front. Attacking with their usual impetuosity, all along the line, the village of Elvina was early carried by the French, who then attempted to turn General Baird's right by the valley shown on the sketch. But Baird skilfully threw back his right so as to take these assailants in flank, and Moore at the same time, ordering up the reserve under Major-General E. Paget, this movement was defeated with heavy loss, and the enemy driven back in confusion on the village of Elvina, which again became the scene of an animated struggle. At the same time, the centre and left were heavily engaged, and the action became general all along the front.

At this moment, Sir David Baird was severely wounded, and shortly afterwards Sir John Moore was struck by a cannon-shot, which dashed him from his horse, breaking his shoulder and collar-bone, and leaving the arm hanging merely by the flesh. The flesh was torn away too from the ribs that covered the heart, and the end was inevitable. He had however strength enough to raise himself into a sitting posture, and he would not allow himself to be carried to the rear until he had watched the fight for some time, and was satisfied that the British were gaining ground, and would win the day. A party of Highlanders, the Black Watch, then bore him from the field in a blanket, but he made them halt occasionally that he might observe how the battle went, and always expressed satisfaction that the French were beaten back. The hilt of his sword was mixed up with his wound, but he would not allow it to be removed, saying—"It is as well as it is. I had rather it should go out of the field with me." To his old friend, Colonel Anderson, who was with him in his final moments, he observed—"You know I always wished to die in this way": and later when assured of victory, he said—"It is a great satisfaction to me to know that we have beaten the French." His last words, 'uttered,' says Napier, 'with an unsubdued spirit, as if anticipating the baseness of his posthumous calumniators,' were—"I hope the people of England will be satisfied! I hope my country will do me justice!"

late now to succour the northern provinces of the Peninsula, or to co-operate with the Spaniards, whose ill-organised armies had already been dispersed by the disciplined legions of Napoleon. Baird* at this time had only reached Astorga, but his rear was still far behind beyond Lugo, and Sir John Hope† was between the Escorial and Talavera. Moore's position was therefore an extremely critical one. Whatever efforts he might make, or whatever risks he was prepared to run, while there was a chance of effective co-operation with the Spanish armies in the field, it was simply courting disaster to continue his forward movement now that those armies were scattered, for by himself he well knew he was quite unable to cope with the huge forces that Napoleon was leading against him, and which were now rapidly closing in on him on every side. There was only one right course to adopt under the circumstances, *viz.*, to fall back on Portugal while there was yet time, and this he resolved to do.

But this determination to retreat created indignation throughout Spain. By the Junta, and by the Ambassador, Mr. Frere, ‡ Sir John Moore was at once assailed by loud and vehement remonstrances. It was represented to him that while Madrid was preparing for a gallant resistance, while Castanos and Romana still fronted the enemy in the North, and reinforcements were arriving daily from the southern provinces, it would be improper and impolitic in the extreme to quench the ardour and enthusiasm that were kindling by withdrawing his support and commencing a movement in retreat. His own officers and men too, ignorant of the just causes by which he was influenced, openly murmured against his resolution, and loudly demanded to be led against the enemy. While clamours of this kind would never have induced Moore to swerve from the path marked out for him by reason and duty, yet one fact standing out amid the mass of conflicting and exaggerated statements pressed upon his attention, seemed

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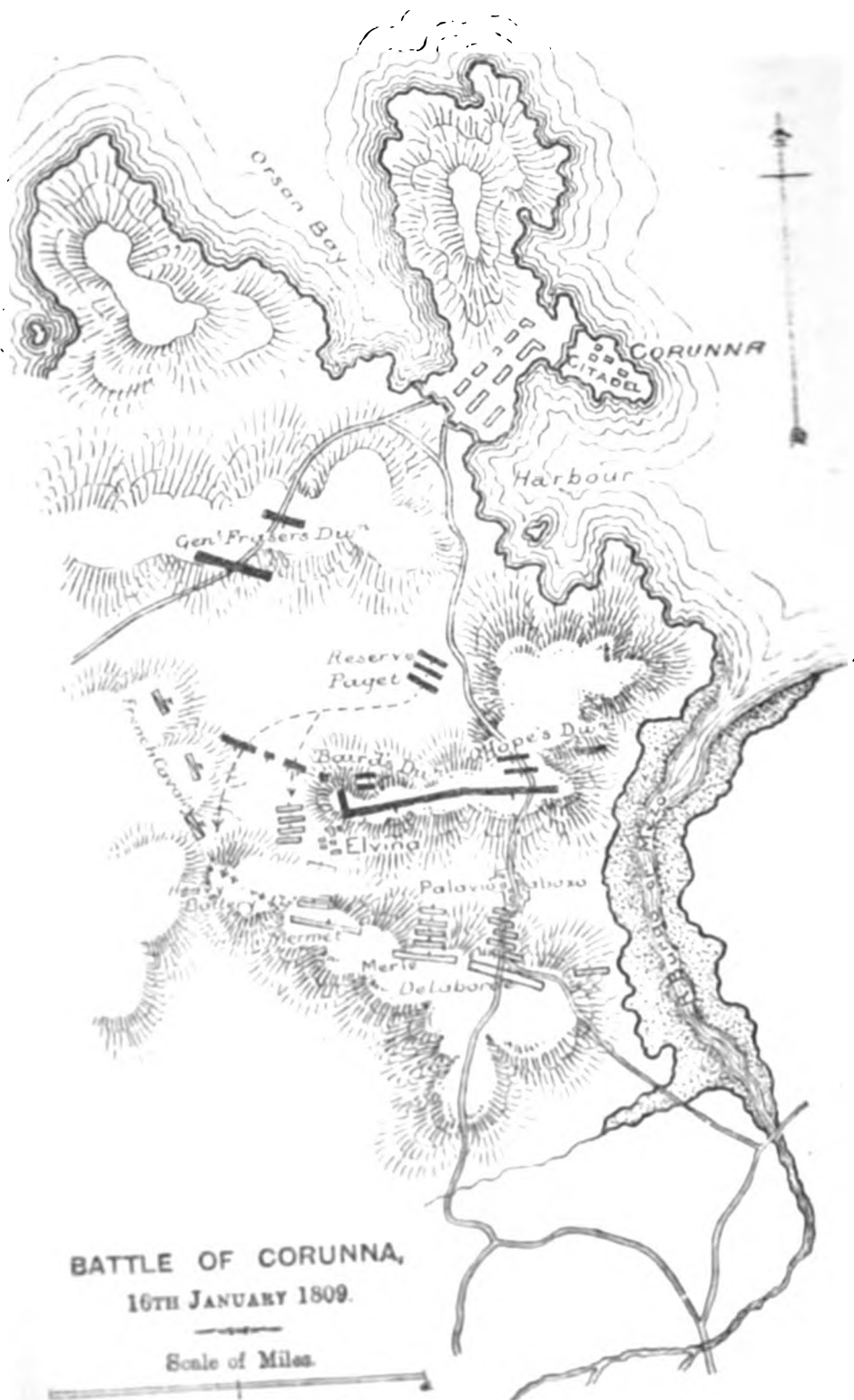
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PART IV.

But to resume. On the 20th December, Moore and Baird at last effected their junction at Mavorga, and now advanced together against Soult. On the evening of the 23rd, they had approached him closely at Soldana, and were preparing to attack him, when alarming news reached Sir John Moore, and was confirmed by his scouts, of the march of a large army against him *from the South*. Instantly his offensive move against Soult was taken off, and the RETREAT TO CORUNNA commenced on the 24th, greatly to the mortification of the



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But he was just too late. Sir John Moore, warned of his danger, though barely in time, was already in full retreat before Soult. On the 26th, he had crossed the Esla at Benevente, so closely pressed by the enemy that some of his

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"Un guide de son escorte conduisant son cheval par la bride, il marchait en tête d'un bataillon d'infanterie. Parmi ces soldats d'élite un grand nombre avaient fait les rudes campagnes d'Austerlitz, d'Eylau, et de Friedland. Ils étaient tous attachés à leur Empereur. Pourtant, tel était à cet instant leur état d'esprit, résultat de la fatigue, et de la souffrance, qu'il terrifia Gonneville, qui marchait aux côtés de l'Empereur. 'Les Grenadiers,' dit-il, s'excitaient mutuellement à lui tirer un coup de fusil, et s'accusaient de lâcheté de ne pouvoir le faire! Lui entendait tout cela aussi bien que nous et n'avait pas l'air d'en tenir compte!"—*Mémoires d'un Aide-Major, Sébastien Blaise.*

up all the fortresses in their possession, and to evacuate Portugal altogether, on the condition that with their arms, artillery, and baggage, they should be conveyed by sea in safety to France. These terms were duly ratified, and executed. By the end of September, the last of their troops had left the country, and Sir Hew Dalrymple had time to consider what the next development of the situation would be.

He was not left long in doubt. As soon as the terms of the Convention of Cintra were known in England, a storm of indignation arose against all who had any hand in it, for it was held by those who knew nothing of the circumstances, and therefore were eminently qualified to form an opinion, that Junot should have been forced into an unconditional surrender, and that to permit his escape, with his army, and stores, was a disgrace to all concerned.* The public clamour was so violent that a Court of Inquiry was assembled at Chelsea to satisfy it, and Sir Hew Dalrymple, Sir Harry Burrard, Sir Arthur Wellesley, and most of the other Generals engaged at Vimeiro, were called before it. They were all, however, acquitted of any blame, but for the present none of them returned to Portugal, where Sir John Moore now remained in chief command. He had landed while the Convention of Cintra was being arranged, and the troops he had brought with him raised the strength of the British army now in and about Lisbon to about 32,000 men.

Napoleon's view of the Convention of Cintra is not without interest. He thought it a gross dereliction of duty on the part of Junot to agree to it, and considered that its terms were most advantageous to the English. "I was going," he said, "to send Junot to a council of war, for his share in it, when fortunately the English tried *their* Generals, and so saved me the pain of punishing an old friend."

PART III.

Portugal having thus been cleared of the enemy by the operations described, attention was now turned to Spain: and the English Government being determined to prosecute the war with vigour, Sir John Moore was ordered early in October to take the field in Northern Spain with 20,000 men, leaving

* "The Editors of the English Daily Press . . . broke forth with such a torrent of rabid malediction, that right and justice were overborne, and the voice of truth stifled by the rostrated venomous cry. Many of the public papers were printed with mourning crests, and the text which related to Portuguese affairs, all called for punishment, some taxed of death to the guilty. . . . the majority of the convention was the universal subject of conversation, a general malice, revenged. — *August, 4, 1809.*"

the rest of his force to preserve order in Lisbon, and defend Portugal. At the same time, he was instructed that 10,000 men, under Sir David Baird, would be sent to join him at once, *vid* Corunna, and that after junction with Baird, he must co-operate with the Spanish armies, and be guided by circumstances as to the course he should pursue.

These instructions were somewhat vague, but Sir John Moore decided that he would best carry them out by a concentration at Salamanca to begin with, and accordingly he started for that place himself on the 26th October, and sent word to Sir David Baird, who landed at Corunna early in November, to join him there without delay. Rarely has a General set out on an expedition beset with such difficulties as those which hampered Sir John Moore on this occasion. With a raw army, and an inexperienced staff; with allies not merely differing from the British in customs, language, and discipline, but divided by jealousies, and blinded by arrogance; with the Civil authorities who should have helped him culpably apathetic, and contemptibly inactive; and finally, with a depleted treasure chest, and miserably deficient transport; he was launched, by his instructions from England, into an unknown country at the commencement of the wettest and worst season of the year, to confer and concert measures with a Spanish General-in-Chief who did not exist,* and to meet an enemy strong in numbers, seasoned by experience, and led by Generals already renowned in war.

Sir David Baird's plight at Corunna was little better, though his burden of responsibility may have been something less. He had neither transport nor money. The local authorities were, in the words of Napier, "unfriendly, crafty, and fraudulent: the peasantry suspicious, rude, disinclined towards strangers, and indifferent to public affairs. A few shots only were required to render theirs a hostile instead of a friendly greeting."

Under these adverse circumstances was the campaign of Corunna commenced: and from operations undertaken with such insufficient means, and obstructed by such extraordinary difficulties, the Commander-in-Chief, oppressed by a thousand anxious cares, may well have augured unhappy results.

* No General-in-Chief was appointed to command the Spanish armies, nor was Moore referred to any person with whom he could communicate at all, much less concert a plan of operations. He was unacquainted with the views of the Spanish Government, and was alike uninformed of the numbers, composition, and situation of the armies with which he was to act, and those with which he was to contend. His own genius, and £25,000 in the military chest, constituted his resources for a campaign which was to lead him far from the coast and all its means of supply."—*Napier, I, 214.*

But before following further Sir John Moore's movements, we must turn to the French and Spanish side, and note their dispositions and plans at this period. It has already been described how bloody insurrections all over Spain had followed the usurpation of the Crown by Joseph. To assist in quelling these outbreaks, some 80,000 men had been despatched from France by the Emperor, and advanced to positions whence they could crush the insurgents, which at first they did, treating them always with pitiless cruelty whenever they fell into their hands. But the spirit of the revolt against the French invasion was too universal and too strong to be suppressed by local successes. Fanned by promises of English support, and by successes achieved by the Spaniards themselves in Aragon, Catalonia, and Valencia: and above all by a great victory gained at Baylen in July, where 18,000 French, under Dupont, surrendered unconditionally to Castaños, it soon burst into violent flame from one end of the Peninsula to the other. The disaster of Baylen was succeeded by a severe defeat at Saragossa, and by serious reverses in other quarters. The triumphant cry of the Spaniards was now heard throughout the land, and Joseph, thoroughly frightened, evacuated Madrid in haste, and removing his head-quarters to Burgos, assembled his Divisions behind the line of the Ebro, and there awaited succours from his brother.

Napoleon, needless to say, fully grasped the gravity of the situation. Whatever contempt he might feel for the military power of Spain, the facts were not to be gainsaid that the whole nation was in arms against him, that England had planted a firm foot on the Peninsula and was threatening him now by land as well by sea, and that the crisis was being closely watched by the Continental Powers "whose pride he had shocked without destroying their strength." Roused to action by these considerations, he lost no time in collecting a vast army with which he designed to summarily crush insurrection, repel invasion, and restore order. By the end of September he had assembled upwards of 250,000 men for the contemplated operations, included amongst whom were the Imperial Guard, many veteran battalions of the grand army, and 40,000 of the flower of his cavalry. Addressing these troops, according to his custom on the eve of a great enterprise, in burning words, he launched them on their journey, and at the very time that Sir John Moore with his modest 20,000 men was leaving Lisbon (26th October) these hosts of Imperial France were pouring through the Pyrenees into Spain. In the

first week in November they were joined by the Emperor in person, who had said farewell to Paris with the words—"I go to put myself at the head of my armies, and with the aid of God, to crown at Madrid the King of Spain, and to plant my eagles on the tower of Lisbon!"

And this great programme was indeed carried out. His arrival on the scene infused as usual life and energy into every one. Under his vigorous leading, the Spaniards were at once attacked and routed in every direction. Giving them no time to rally or recover, he detached a corps under Soult to watch the Carrion river and protect his right flank, and rapidly marching southwards himself, he stormed the Somo-sierra Pass on the 30th November* and on the 4th December, entered Madrid in triumph, and once more established his worthless brother on the throne of Spain.

We are now in a position to return to Sir John Moore, and follow his fortunes in the perilous enterprise with which he was charged.

He had made a start, as already told, on the 26th October. Ill-prepared as he was for the arduous task before him, he judged it right to admit nothing as an excuse for delay. "The army," he wrote, "runs the risk of finding itself in front of the enemy with no more ammunition than the men carry in their pouches: but were I to await until everything is ready, the troops would not be in Spain till the spring, and I trust the enemy will not find out our wants so soon as they will feel the effects of what we have." It had been his intention to march to Salamanca *vid* Coimbra, Almeida, and Ciudad Rodrigo, the guns and cavalry moving by Abrantes, and Alcantara. But hardly had the march commenced, when it was ascertained that the roads north of the Tagus were impracticable for artillery, so reluctantly and with many misgivings, he was compelled to send the cavalry, 1,000 strong, 24 guns (all he had, except one battery retained with himself) and the ammunition columns, with 3,000 infantry as escort, *vid* Elvas, Merida, Almaraz, the Escorial Pass, and Arevalo. This column was under the command of Sir John Hope, an officer "whose capacity and firmness qualified him for the most important commands."

By the 20th of November, Sir John Moore had accomplished his arduous march of 350 miles to Salamanca, but it was too

* The Pass was captured by a charge of Polish Cavalry! Napier describes it (Vol. I, 267) and says of it—"This exploit, so glorious to one party, so disgraceful to the other, can hardly be matched in the annals of war."

See also: Sir Evelyn Wood's "*Achievements of Cavalry*, page 43," for a detailed and stirring description of this feat of arms.

late now to succour the northern provinces of the Peninsula, or to co-operate with the Spaniards, whose ill-organised armies had already been dispersed by the disciplined legions of Napoleon. Baird* at this time had only reached Astorga, but his rear was still far behind beyond Lugo, and Sir John Hope† was between the Escorial and Talavera. Moore's position was therefore an extremely critical one. Whatever efforts he might make, or whatever risks he was prepared to run, while there was a chance of effective co-operation with the Spanish armies in the field, it was simply courting disaster to continue his forward movement now that those armies were scattered, for by himself he well knew he was quite unable to cope with the huge forces that Napoleon was leading against him, and which were now rapidly closing in on him on every side. There was only one right course to adopt under the circumstances, *viz.*, to fall back on Portugal while there was yet time, and this he resolved to do.

But this determination to retreat created indignation throughout Spain. By the Junta, and by the Ambassador, Mr. Frere, ‡Sir John Moore was at once assailed by loud and vehement remonstrances. It was represented to him that while Madrid was preparing for a gallant resistance, while Castanos and Romana still fronted the enemy in the North, and reinforcements were arriving daily from the southern provinces, it would be improper and impolitic in the extreme to quench the ardour and enthusiasm that were kindling by withdrawing his support and commencing a movement in retreat. His own officers and men too, ignorant of the just causes by which he was influenced, openly murmured against his resolution, and loudly demanded to be led against the enemy. While clamours of this kind would never have induced Moore to swerve from the path marked out for him by reason and duty, yet one fact standing out amid the mass of conflicting and exaggerated statements pressed upon his attention, seemed

* "Sir David Baird had no money * * * and wanting all equipments essential they only marched by half battalions, conveying their stores on country carts hired from day to day."—*Napier, I, 219.*

† "Sir John Hope's column had been compelled, from the want of money and supplies, to move in six divisions, each a day's march behind the other." It was only by great resolution, intrepidity, and skill, that it was brought safely through to Salamanca.—*Napier, I, 286.*

‡ Mr. Frere had succeeded Lord Strangford. "He was a person of mere scholastic attainments, very ill-qualified for the duties of his situation, which at this time required temper, sagacity, and judgment. * * He had come out to Spain impressed with false notions of what was passing in that country, and tenaciously clinging to the pictures of his imagination, resented the intrusion of reason, and petulantly spurned at facts. * * * He was ever prompt to interfere with, and eager to control the military combinations of the General."—*Napier, I, 288.*

to be worthy of special consideration. This was that the city of Madrid was actually resisting, and might be depended upon to make a stubborn and prolonged defence.* This was an event full of promise and hope: and as every day brought fresh assurances of the spirit and enthusiasm that prevailed, and as moreover his cavalry and artillery under Sir John Hope had now successfully joined him, he determined, at whatever peril to himself, to make one great bid for fortune, and forthwith conceived, and proceeded to carry out with vigour, a design which Napier describes as "a daring enterprise stamped with the seal of genius, political and military."

This was to advance against the comparatively weak corps of Soult on the Carrion river, and so strike at the Emperor's communications, and line of supply through Burgos. The effect of this bold movement should be to suspend Napoleon's advance on Portugal, afford succour to Madrid, and give time to the South to organise its defences. As for the danger to his own army, Moore saw it well, and appreciated it to the full;† but "he knew also the martial qualities of his soldiers, he felt the pulsations of his own genius, and the object being worth the deed, he dared essay it even against Napoleon."

His mind made up, he lost no time in carrying out his plan, and on the 11th December, the movement was commenced. Fresh orders were sent to Sir David Baird to quicken his march, and ensure his co-operation, but at the same time, in view of a retreat later, he was directed to form magazines at Benevente, Astorga, Villa Franca, and Lugo; and as it was now finally settled that if the army did retreat, it should be *viâ* Galicia, and not through Portugal, the transports were ordered round from Lisbon to Vigo. Moore's own march was directed on Toro and Tordesillas, which places were occupied by him on the 13th, when an intercepted despatch fell into his hands, and made him once more anxiously consider the situation. This despatch was from the Chief of the Staff, Berthier, to Soult. From it Moore learned that Madrid had fallen on the 4th December, after a resistance of only two days: that one French corps was already at Talavera on its

* "Upon this chance I have stopped Baird's retreat, and am taking measures to form our junction. We are bound not to abandon the cause as long as there is hope."—*Sir John Moore's Journal, Salamanca, 9th December 1808.*

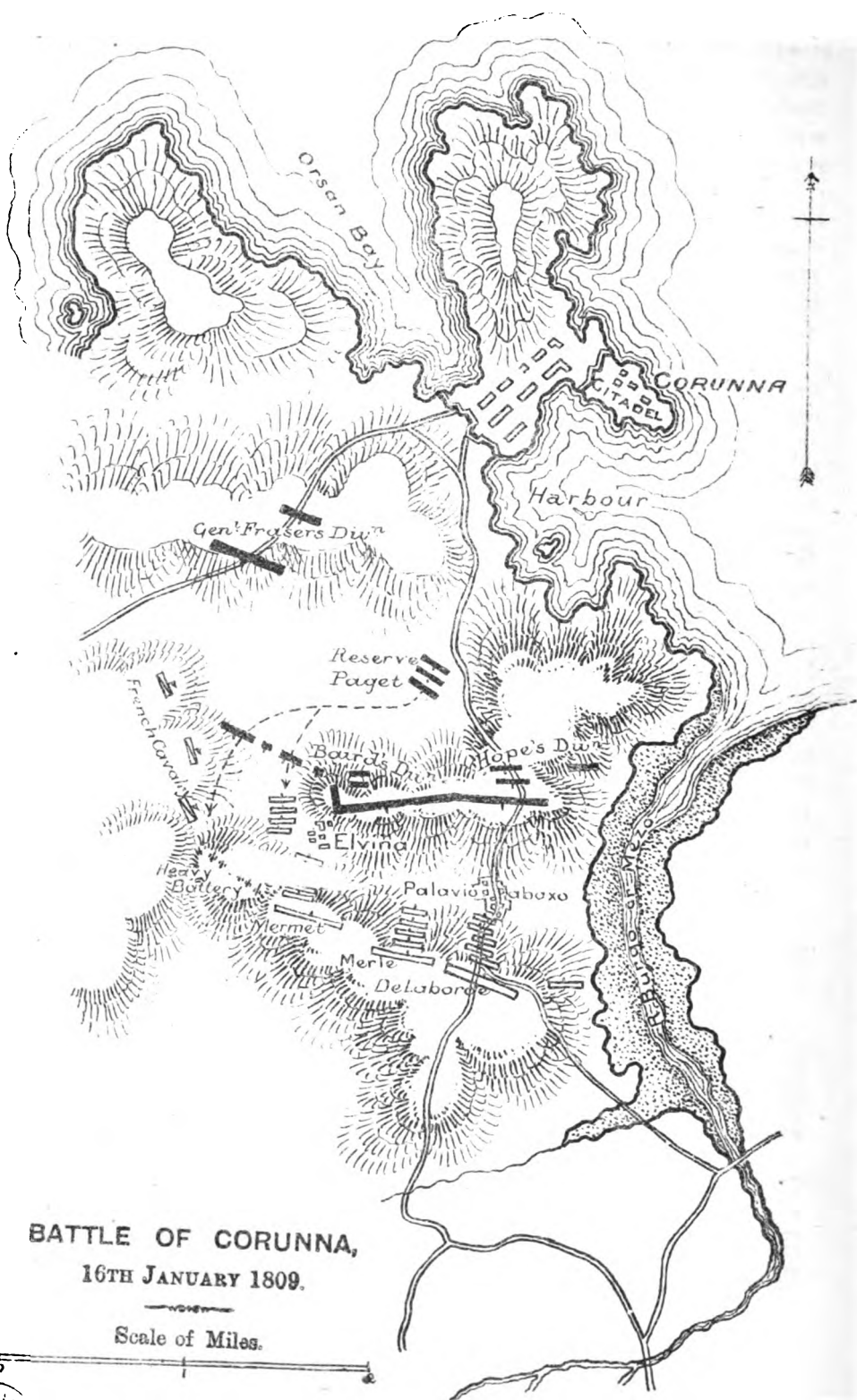
† "I was aware that I risked infinitely too much, but something, I thought, was to be risked for the honour of the service, and to make it apparent that we stuck to the Spaniards long after they had themselves given up their cause as lost."—*Sir John Moore's Journal, Sahagun, 24th December 1808.*

way to Badajos and Lisbon, that another was marching on Saragossa, and another on Burgos: and that Soult was ordered to occupy Leon, Benevente, and Zamorra, and threaten Galicia. This was startling news to a General who had been assured that Madrid would hold out for weeks, and prove a rallying-point for the devoted efforts of the provinces. But nevertheless, Moore determined to continue his advance against Soult, for the intercepted despatch made no reference to his own movements, of which it was evident Napoleon, and Soult too, at this time, were in complete ignorance. There was therefore still a chance of surprising and defeating Soult before the Emperor could come to his assistance; and deeply impressed, as he was, with the importance of drawing Napoleon away from his march on Portugal, and the southern provinces of Spain, he resolved, with glorious hardihood, to make a dash at Soult on the Carrion river, while there was yet a chance of catching him unprepared.

I must interrupt my narrative here to draw your attention to a remarkable instance of the fortune of war in connection with this intercepted despatch of which I have spoken. It was carried by a French officer without escort, who rode post. At a way side inn he quarrelled with the landlord about a change of horses, and in the *fracas* that ensued he lost his life. An English Intelligence officer, Captain Waters, happened to come along at this juncture, heard of the murder, and immediately purchased the despatch from the inn-keeper for twenty dollars! In this purely accidental way, this important document fell into Sir John Moore's hands. Napier remarks that "it was the more valuable, as neither money nor patriotism had hitherto induced the Spaniards to bring any intelligence of the enemy's situation: each step the army had made was in the dark."

PART IV.

But to resume. On the 20th December, Moore and Baird at last effected their junction at Mayorga, and now advanced together against Soult. On the evening of the 23rd, they had approached him closely at Soldana, and were preparing to attack him, when alarming news reached Sir John Moore, and was confirmed by his scouts, of the march of a large army against him *from the South*. Instantly his offensive move against Soult was broken off, and the RETREAT TO CORUNNA commenced on the 24th, greatly to the mortification of the



troops, who were in splendid condition at this time, and in spirits which had been raised to the highest pitch by several brilliant exploits of the cavalry, who had already had several affairs with the enemy, and had on each occasion beaten them handsomely, and captured many prisoners.

But it was no time to trifle, or delay. The army, coming from the South, was the main army, upwards of 50,000 strong, under the leadership of the great Emperor himself. On the 21st of December, he had learned for the first time where Moore was, and what he was doing. To surround and destroy the English was rightly judged by him to be of far more consequence now than to invade Portugal. Leaving 10,000 men therefore in Madrid to preserve order, he flew with all that remained to fall upon Moore. By the evening of the 22nd, he had assembled 50,000 men, and 150 guns, at the foot of the Guadarama range, and in the following two days, though violent storms prevailed, and the Escorial Pass was choked with snow, he had carried them across the mountains, and by the 26th, had reached Tordesillas. This was an extraordinary achievement, for in less than five days he had with this immense force accomplished more than 100 miles, including the passage of a snowy mountain pass in the depth of winter. His personal example, and influence,* and indomitable energy, alone enabled him to carry this operation through successfully.

So confident was Napoleon now of victory that from Tordesillas he wrote to Soult—"Our cavalry scouts are already at Benevente. If the English pass to-day in their position, they are lost. If they attack you with all their force, retire one day's march: the further they proceed, the better for us. If they retreat, pursue them closely."

But he was just too late. Sir John Moore, warned of his danger, though barely in time, was already in full retreat before Soult. On the 26th, he had crossed the Esla at Benevente, so closely pressed by the enemy that some of his

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"Un guide de son escorte conduisant son cheval par la bride, il marchait en tête d'un bataillon d'infanterie. Parmi ces soldats d'élite un grand nombre avaient fait les rudes campagnes d'Austerlitz, d'Eylau, et de Friedland. Ils étaient tous attachés à leur Empereur. Pourtant, tel était à cet instant leur état d'esprit, résultat de la fatigue, et de la souffrance, qu'il terrifia Gonneville, qui marchait aux côtés de l'Empereur. 'Les Grenadiers,' dit-il, s'excitaient mutuellement à lui tirer un coup de fusil, et s'accusaient de lâcheté de ne pouvoir le faire! Lui entendait tout cela aussi bien que nous et n'avait pas l'air d'en tenir compte!"—*Mémoires d'un Aide-Major, Sébastien Blaise.*

stragglers and baggage were cut off by their cavalry, and having halted for a couple of days to clear out the magazines, and organise transport (a halt which however necessary, might have been disastrous if a sudden flood in the river had not rendered it unfordable for twenty-four hours), the retreat was resumed in haste upon Astorga, on the 29th, covered by the cavalry, who, before evacuating Benevente, were indulged in an exciting skirmish with six hundred horsemen of the Imperial Guard. In a brilliant charge made by the 10th Hussars under Lord Paget, which seems to have been timed to the moment, these chosen cavaliers of Napoleon were routed and overthrown with great slaughter—120 of them were killed and wounded, and 70 were taken prisoners, including a General of Division, Lefebre-Desnouettes. It is believed that Napoleon was himself a witness of this incident from his head-quarters on the other bank of the river.

But this was the last beam of glory shed upon the English Army in this campaign until the sea was reached. From the day the retreat had commenced, insubordination had shown itself in the ranks, and the worst disorders had prevailed. In a march of only three days from the Carrion to the Esla, discipline had been relaxed to such a degree that already the officers had lost much of their authority over the men, and excesses fatal equally to the army and to the inhabitants had already commenced. It was a matter of importance to Moore to gain as rapidly as possible the mountainous country beyond Astorga, where he would be comparatively safe from the numerous and powerful French cavalry. But the forced marches which this effort entailed upon his troops demoralised them still more. Their condition became daily more deplorable. Frost and snow, thaws and rain and sleet, succeeded each other with merciless severity, and without intermission. The roads were broken up, the horses fell at every step, and waggons, ammunition, and supplies were abandoned at every turn. Even the military chest, containing £25,000 in dollars, was thrown over a precipice because conveyance for it could no longer be arranged. Worse than all, the "national vice of drunkenness here appeared in frightful colours. The great wine vaults of Bembibre and Villa Franca proved more fatal than the sword of the enemy, and when the gallant rear-guard which always preserved its ranks unbroken, closed up the array, it had to force its way through a motley crowd of soldiers, stragglers and marauders, who reeled out of the houses in disgusting crowds, or lay stretched on the road-side, an easy prey to the enemy's cavalry which ever thundered in close pursuit."

Amidst such shocking scenes, the army, on the 6th January, struggled into Lugo, and here Sir John Moore determined to stand and fight. The mere announcement of this intention was enough to restore the spirit of the troops. The confusion ceased at once, stragglers hastened to rejoin their colours, and the ranks were rapidly re-formed. On the morning of the 7th January, 1809, 19,000 men were drawn out in battle array impatiently awaiting the attack of the enemy. "A British army may be *gleaned* in a retreat," says one of its most experienced officers, "but it cannot be *reaped*. Whatever may be their misery, the soldiers will always be found clean at a review, and ready at a fight": and so the order to prepare for battle at Lugo acted like the wand of the enchanter, and in an instant, order, discipline, and willing subordination, were restored to the ranks.

Here, for a moment, we must return to the French, to explain that Napoleon was no longer in command of them in person. At Astorga on the 1st January,* he had received news that Austria, taking advantage of his absence, was again preparing to take the field against him, and was even meditating an invasion of France. Satisfied that very little effort was required now to complete the ruin of the English, and drive them into the sea, he intrusted the command from this point to Soult, and ordering the Imperial Guard to return to France, he set off himself for Paris, travelling so fast that "by the astonishing speed of his journey he frustrated some designs which the Spaniards had, it is said, formed against his person."

It was Soult, then, who found the English offering him battle at Lugo. A reconnaissance in force of their position, in which he was somewhat roughly handled, showed him that Sir John Moore's whole army was before him, and not merely a rear-guard. He resolved therefore to wait until his own troops had all closed up before attacking. But the 8th passed without his making any demonstration, and the English General could stay no longer. His halt had rested his men, and his offer to fight had restored their spirit, and to a great extent their discipline. But his supplies were running short, and there was only ammunition enough for one battle, and that must now be fought at Corunna to cover the embarkation. Further delay was therefore useless, and hoping to steal a march on the French, Sir John Moore

* "In ten days, and in the depth of winter, he had crossed the snowy ridge of the Guadarama, had traversed 200 miles of hostile country, and transported 50,000 men from Madrid to Astorga in a shorter time than a Spanish courier would have taken to travel the same distance!"—*Napier, I, 312.*

resumed his movement in retreat from Lugo at 10 P.M. on the night of the 8th, leaving his bivouac fires brightly burning to deceive the enemy.

But ill-fortune still pursued him relentlessly. Hardly had the march commenced when a violent tempest of wind and sleet arose, which not only distressed the men already exhausted by privations and hardships (greatly the result of their own misconduct), but also which scattered the bundles of straw which had been laid during the day to mark out the routes to be followed. In consequence, the Divisions, all but one, lost their way in the snow, and when day-light broke found themselves still in the neighbourhood of Lugo. This unfortunate accident, through the fatigue, disappointment, and depression of spirits, which it produced, again broke down the discipline of the men. The scenes of drunkenness and disorder witnessed at Bemibre and Villa Franca were repeated here, and the losses incurred in one short march out of Lugo were in consequence greater than all the previous losses during the retreat put together.*

The next day, the 10th, the army reached Corunna, but a fresh disappointment awaited the unfortunate Moore here, for the transports which had been ordered round from Vigo had not arrived. Adverse winds had delayed them, and it was not until the 14th that their friendly sails hove in sight. The embarkation of the sick and wounded was then commenced at once, and completed on the 15th. The artillery was put on board too, with the exception, of only six guns, as from the nature of the ground on which the battle must be fought, if the French attacked, it could be of little service. Finally, it was decided that, unless attacked in the meantime, the army itself should embark on the 16th.

It may be wondered why Soult delayed the assault so long. The simple truth is that the dreadful weather, and the bad roads, had fatigued and scattered his troops to an extent only less than they had affected the British, and it was not until the 15th that he had collected his Divisions, and was ready to attack. That evening the picquets on both sides were engaged, but it was not until 2 o'clock in the afternoon of

| | | |
|---|------------------|----------|
| * Lost at, or previous to the arrival of the army at the position of Lugo. | Cavalry . 95 | } Total. |
| | Infantry . 1,302 | |
| Lost between the departure of the army from Lugo, and the embarkation at Corunna. | Cavalry . 9 | } 2,636 |
| | Infantry . 2,627 | |
| GRAND TOTAL | | 4,033 |

the 16th January that the battle of Corunna was commenced. The British were about 14,500 strong disposed as shown in the accompanying sketch: the French were not less than 20,000, and were supported by a powerful artillery.

There were no grand tactics displayed by either side at the battle of Corunna. Soult relying on the strength of his position, and his superiority in numbers, and in artillery, resolved to waste no time in manœuvres, and ordered a general assault straight to the front. Attacking with their usual impetuosity, all along the line, the village of Elvina was early carried by the French, who then attempted to turn General Baird's right by the valley shown on the sketch. But Baird skilfully threw back his right so as to take these assailants in flank, and Moore at the same time, ordering up the reserve under Major-General E. Paget, this movement was defeated with heavy loss, and the enemy driven back in confusion on the village of Elvina, which again became the scene of an animated struggle. At the same time, the centre and left were heavily engaged, and the action became general all along the front.

At this moment, Sir David Baird was severely wounded, and shortly afterwards Sir John Moore was struck by a cannon-shot, which dashed him from his horse, breaking his shoulder and collar-bone, and leaving the arm hanging merely by the flesh. The flesh was torn away too from the ribs that covered the heart, and the end was inevitable. He had however strength enough to raise himself into a sitting posture, and he would not allow himself to be carried to the rear until he had watched the fight for some time, and was satisfied that the British were gaining ground, and would win the day. A party of Highlanders, the Black Watch, then bore him from the field in a blanket, but he made them halt occasionally that he might observe how the battle went, and always expressed satisfaction that the French were beaten back. The hilt of his sword was mixed up with his wound, but he would not allow it to be removed, saying—"It is as well as it is. I had rather it should go out of the field with me." To his old friend, Colonel Anderson, who was with him in his final moments, he observed—"You know I always wished to die in this way": and later when assured of victory, he said—"It is a great satisfaction to me to know that we have beaten the French." His last words, 'uttered,' says Napier, 'with an unsubdued spirit, as if anticipating the baseness of his posthumous calumniators,' were—"I hope the people of England will be satisfied! I hope my country will do me justice!"

way to Badajos and Lisbon, that another was marching on Saragossa, and another on Burgos: and that Soult was ordered to occupy Leon, Benevente, and Zamorra, and threaten Galicia. This was startling news to a General who had been assured that Madrid would hold out for weeks, and prove a rallying-point for the devoted efforts of the provinces. But nevertheless, Moore determined to continue his advance against Soult, for the intercepted despatch made no reference to his own movements, of which it was evident Napoleon, and Soult too, at this time, were in complete ignorance. There was therefore still a chance of surprising and defeating Soult before the Emperor could come to his assistance; and deeply impressed, as he was, with the importance of drawing Napoleon away from his march on Portugal, and the southern provinces of Spain, he resolved, with glorious hardihood, to make a dash at Soult on the Carrion river, while there was yet a chance of catching him unprepared.

I must interrupt my narrative here to draw your attention to a remarkable instance of the fortune of war in connection with this intercepted despatch of which I have spoken. It was carried by a French officer without escort, who rode post. At a way side inn he quarrelled with the landlord about a change of horses, and in the *fracas* that ensued he lost his life. An English Intelligence officer, Captain Waters, happened to come along at this juncture, heard of the murder, and immediately purchased the despatch from the inn-keeper for twenty dollars! In this purely accidental way, this important document fell into Sir John Moore's hands. Napier remarks that "it was the more valuable, as neither money nor patriotism had hitherto induced the Spaniards to bring any intelligence of the enemy's situation: each step the army had made was in the dark."

PART IV.

But to resume. On the 20th December, Moore and Baird at last effected their junction at Mavorga, and now advanced together against Soult. On the evening of the 23rd, they had approached him closely at Soldana, and were preparing to attack him, when alarming news reached Sir John Moore, and was confirmed by his scouts, of the march of a large army against him *from the South*. Instantly his offensive move against Soult was broken off, and the **RETREAT TO CORUNNA** commenced on the 24th, greatly to the mortification of the



BATTLE OF CORUNNA,

16TH JANUARY 1809.

Scale of Miles.

troops, who were in splendid condition at this time, and in spirits which had been raised to the highest pitch by several brilliant exploits of the cavalry, who had already had several affairs with the enemy, and had on each occasion beaten them handsomely, and captured many prisoners.

But it was no time to trifle, or delay. The army, coming from the South, was the main army, upwards of 50,000 strong, under the leadership of the great Emperor himself. On the 21st of December, he had learned for the first time where Moore was, and what he was doing. To surround and destroy the English was rightly judged by him to be of far more consequence now than to invade Portugal. Leaving 10,000 men therefore in Madrid to preserve order, he flew with all that remained to fall upon Moore. By the evening of the 22nd, he had assembled 50,000 men, and 150 guns, at the foot of the Guadarama range, and in the following two days, though violent storms prevailed, and the Escorial Pass was choked with snow, he had carried them across the mountains, and by the 26th, had reached Tordesillas. This was an extraordinary achievement, for in less than five days he had with this immense force accomplished more than 100 miles, including the passage of a snowy mountain pass in the depth of winter. His personal example, and influence,* and indomitable energy, alone enabled him to carry this operation through successfully.

So confident was Napoleon now of victory that from Tordesillas he wrote to Soult—"Our cavalry scouts are already at Benevente. If the English pass to-day in their position, they are lost. If they attack you with all their force, retire one day's march: the further they proceed, the better for us. If they retreat, pursue them closely."

But he was just too late. Sir John Moore, warned of his danger, though barely in time, was already in full retreat before Soult. On the 26th, he had crossed the Esia at Benevente, so closely pressed by the enemy that some of his

* "Deep snow choked the Passes, and twelve hours of ineffectual toil left the advanced guards still on the wrong side. The General commanding reported that the road was impracticable, but Napoleon placing himself at the head of the Column, on foot, and amidst storms of hail and drifting snow, led his soldiers over the mountains. Many men and animals died during the passage, which lasted two days, but the Emperor, personally urging on the troops with unceasing vehemence, reached Villa Castin, 50 miles from Madrid, on the 24th.—*Napier, I, 304.*

"Un guide de son escorte conduisant son cheval par la bride, il marchait en tête d'un bataillon d'infanterie. Parmi ces soldats d'élite un grand nombre avaient fait les rudes campagnes d'Austerlitz, d'Eylau, et de Friedland. Ils étaient tous attachés à leur Empereur. Pourtant, tel était à cet instant leur état d'esprit, résultat de la fatigue, et de la souffrance, qu'il terrifia Gonneville, qui marchait aux côtés de l'Empereur. 'Les Grenadiers,' dit-il, s'excitaient mutuellement à lui tirer un coup de fusil, et s'accusaient de lâcheté de ne pouvoir le faire! Lui entendait tout cela aussi bien que nous et n'avait pas l'air d'en tenir compte!—*Mémoires d'un Aide-Major, Sébastien Blaise.*

stragglers and baggage were cut off by their cavalry, and having halted for a couple of days to clear out the magazines, and organise transport (a halt which however necessary, might have been disastrous if a sudden flood in the river had not rendered it unfordable for twenty-four hours), the retreat was resumed in haste upon Astorga, on the 29th, covered by the cavalry, who, before evacuating Benevente, were indulged in an exciting skirmish with six hundred horsemen of the Imperial Guard. In a brilliant charge made by the 10th Hussars under Lord Paget, which seems to have been timed to the moment, these chosen cavaliers of Napoleon were routed and overthrown with great slaughter—120 of them were killed and wounded, and 70 were taken prisoners, including a General of Division, Lefebvre-Desnouettes. It is believed that Napoleon was himself a witness of this incident from his head-quarters on the other bank of the river.

But this was the last beam of glory shed upon the English Army in this campaign until the sea was reached. From the day the retreat had commenced, insubordination had shown itself in the ranks, and the worst disorders had prevailed. In a march of only three days from the Carrion to the Esla, discipline had been relaxed to such a degree that already the officers had lost much of their authority over the men, and excesses fatal equally to the army and to the inhabitants had already commenced. It was a matter of importance to Moore to gain as rapidly as possible the mountainous country beyond Astorga, where he would be comparatively safe from the numerous and powerful French cavalry. But the forced marches which this effort entailed upon his troops demoralised them still more. Their condition became daily more deplorable. Frost and snow, thaws and rain and sleet, succeeded each other with merciless severity, and without intermission. The roads were broken up, the horses fell at every step, and waggons, ammunition, and supplies were abandoned at every turn. Even the military chest, containing £25,000 in dollars, was thrown over a precipice because conveyance for it could no longer be arranged. Worse than all, the "national vice of drunkenness" appeared in its fatal colours. The great wine vaults of Penabazé and Val de Foncea proved more fatal than the sword of the enemy, and when the gallant rear-guard which always preserved its ranks unbroken, closed up the array, it had to force its way through a motley crowd of soldiers, stragglers and marauders, who reeled out of the houses in disgusting crowds, or lay stretched on the road-side, an easy prey to the enemy's cavalry whenever they were in close pursuit."

Amidst such shocking scenes, the army, on the 6th January, struggled into Lugo, and here Sir John Moore determined to stand and fight. The mere announcement of this intention was enough to restore the spirit of the troops. The confusion ceased at once, stragglers hastened to rejoin their colours, and the ranks were rapidly re-formed. On the morning of the 7th January, 1809, 19,000 men were drawn out in battle array impatiently awaiting the attack of the enemy. "A British army may be *gleaned* in a retreat," says one of its most experienced officers, "but it cannot be *reaped*. Whatever may be their misery, the soldiers will always be found clean at a review, and ready at a fight": and so the order to prepare for battle at Lugo acted like the wand of the enchanter, and in an instant, order, discipline, and willing subordination, were restored to the ranks.

Here, for a moment, we must return to the French, to explain that Napoleon was no longer in command of them in person. At Astorga on the 1st January,* he had received news that Austria, taking advantage of his absence, was again preparing to take the field against him, and was even meditating an invasion of France. Satisfied that very little effort was required now to complete the ruin of the English, and drive them into the sea, he intrusted the command from this point to Soult, and ordering the Imperial Guard to return to France, he set off himself for Paris, travelling so fast that "by the astonishing speed of his journey he frustrated some designs which the Spaniards had, it is said, formed against his person."

It was Soult, then, who found the English offering him battle at Lugo. A reconnaissance in force of their position, in which he was somewhat roughly handled, showed him that Sir John Moore's whole army was before him, and not merely a rear-guard. He resolved therefore to wait until his own troops had all closed up before attacking. But the 8th passed without his making any demonstration, and the English General could stay no longer. His halt had rested his men, and his offer to fight had restored their spirit, and to a great extent their discipline. But his supplies were running short, and there was only ammunition enough for one battle, and that must now be fought at Corunna to cover the embarkation. Further delay was therefore useless, and hoping to steal a march on the French, Sir John Moore

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resumed his movement in retreat from Lugo at 10 P.M. on the night of the 8th, leaving his bivouac fires brightly burning to deceive the enemy.

But ill-fortune still pursued him relentlessly. Hardly had the march commenced when a violent tempest of wind and sleet arose, which not only distressed the men already exhausted by privations and hardships (greatly the result of their own misconduct), but also which scattered the bundles of straw which had been laid during the day to mark out the routes to be followed. In consequence, the Divisions, all but one, lost their way in the snow, and when day-light broke found themselves still in the neighbourhood of Lugo. This unfortunate accident, through the fatigue, disappointment, and depression of spirits, which it produced, again broke down the discipline of the men. The scenes of drunkenness and disorder witnessed at Bembibre and Villa Franca were repeated here, and the losses incurred in one short march out of Lugo were in consequence greater than all the previous losses during the retreat put together.*

The next day, the 10th, the army reached Corunna, but a fresh disappointment awaited the unfortunate Moore here, for the transports which had been ordered round from Vigo had not arrived. Adverse winds had delayed them, and it was not until the 14th that their friendly sails hove in sight. The embarkation of the sick and wounded was then commenced at once, and completed on the 15th. The artillery was put on board too, with the exception, of only six guns, as from the nature of the ground on which the battle must be fought, if the French attacked, it could be of little service. Finally, it was decided that, unless attacked in the meantime, the army itself should embark on the 16th.

It may be wondered why Soult delayed the assault so long. The simple truth is that the dreadful weather, and the bad roads, had fatigued and scattered his troops to an extent only less than they had affected the British, and it was not until the 15th that he had collected his Divisions, and was ready to attack. That evening the picquets on both sides were engaged, but it was not until 2 o'clock in the afternoon of

| | Total. |
|--|--------|
| • Lost at, or previous to the arrival of the (Cavalry . . . 95) | 1,327 |
| army at the position of Lugo. (Infantry . 1,232) | |
| Lost between the departure of the army (Cavalry . . . 6) | 2,627 |
| from Lugo, and the embarkation at (Infantry . 2,621) | |
| Corunna. | |
| GRAND TOTAL | 4,953 |

the 16th January that the battle of Corunna was commenced. The British were about 14,500 strong disposed as shown in the accompanying sketch: the French were not less than 20,000, and were supported by a powerful artillery.

There were no grand tactics displayed by either side at the battle of Corunna. Soult relying on the strength of his position, and his superiority in numbers, and in artillery, resolved to waste no time in manœuvres, and ordered a general assault straight to the front. Attacking with their usual impetuosity, all along the line, the village of Elvina was early carried by the French, who then attempted to turn General Baird's right by the valley shown on the sketch. But Baird skilfully threw back his right so as to take these assailants in flank, and Moore at the same time, ordering up the reserve under Major-General E. Paget, this movement was defeated with heavy loss, and the enemy driven back in confusion on the village of Elvina, which again became the scene of an animated struggle. At the same time, the centre and left were heavily engaged, and the action became general all along the front.

At this moment, Sir David Baird was severely wounded, and shortly afterwards Sir John Moore was struck by a cannon-shot, which dashed him from his horse, breaking his shoulder and collar-bone, and leaving the arm hanging merely by the flesh. The flesh was torn away too from the ribs that covered the heart, and the end was inevitable. He had however strength enough to raise himself into a sitting posture, and he would not allow himself to be carried to the rear until he had watched the fight for some time, and was satisfied that the British were gaining ground, and would win the day. A party of Highlanders, the Black Watch, then bore him from the field in a blanket, but he made them halt occasionally that he might observe how the battle went, and always expressed satisfaction that the French were beaten back. The hilt of his sword was mixed up with his wound, but he would not allow it to be removed, saying—"It is as well as it is. I had rather it should go out of the field with me." To his old friend, Colonel Anderson, who was with him in his final moments, he observed—"You know I always wished to die in this way": and later when assured of victory, he said—"It is a great satisfaction to me to know that we have beaten the French." His last words, 'uttered,' says Napier, 'with an unsubdued spirit, as if anticipating the baseness of his posthumous calumniators,' were—"I hope the people of England will be satisfied! I hope my country will do me justice!"

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| | Total. |
|--|--------|
| * Lost at, or previous to the arrival of the | |
| Army at the position of Lugo { Cavalry 65 } | |
| Army at the position of Lugo { Infantry 1,312 } | 1,377 |
| Lost when the departure of the army { Cavalry 6 } | |
| from Lugo, and the embarkation at { Infantry 2,627 } | 2,633 |
| Corunna. | |
| GRAND TOTAL | 4,010 |

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A few minutes after this he died, and wrapped in his military cloak, was buried the same night in the citadel of Corunna. "The guns of the enemy paid his funeral honours: and Soult, with a noble feeling of respect for his valour, raised a monument to his memory."

Little more remains to be said. After the fall of Sir John Moore, Baird being badly wounded, the command devolved on Sir John Hope, by whom the struggle was continued with unabated energy till darkness put a stop to the fighting. By this time the British had been successful all along the line. They had carried the village of Palavia-abaxo on the left, and had finally expelled the enemy from Elvina in the centre: while on the right, Paget's attack had overthrown everything opposed to it: so that when night set in they were considerably in advance of their original positions, while the French were falling back everywhere in confusion. The loss of the English in this battle was 800: the French loss was between 2,000 and 3,000.

There was, however, nothing to be gained either by pursuit, or by offering to renew the fight on the following day. It was decided, therefore, to embark the army without delay, and sail for England, and so complete were the arrangements made that during the night the operation was carried out without confusion or difficulty, under cover of one brigade, which in its turn was protected during embarkation by the Spaniards who loyally held the town and Citadel of Corunna until the fleet had put to sea. But the misfortunes of the men who had fought so bravely were not ended yet. Hardly had the ships sailed when they were scattered by a terrible storm. Many were wrecked, and the remainder driving up Channel were glad to put into any port that offered. The soldiers thus thrown on shore were spread from the Land's End to Dover. Draggled, dirty, and diseased, their miserable state soon became the topic of every letter, and the theme of every newspaper along the coast.* Their gloomy narratives, "the usual exaggerations of men just escaped from perils and distresses," spread despondency throughout the land, and Sir John Moore's conduct of the campaign was loudly blamed on every side.

But his memory has long since been done ample justice to. To judge a commander by the event alone is as unjust as it is unreasonable. In Moore's case, we have but to consider, on the one hand, his insufficient means, his small numbers,

* *Napier, Vol. I, 357.*

his gigantic task, and on the other, to recollect the extraordinary and incredible difficulties by which he was surrounded—the treachery, folly, and wilful deception practised on him by the Spanish authorities, the glaring incapacity of the Spanish Generals, and the irritating and ill-timed interference of the British Ambassador, Mr. Frere—to form some faint picture of the embarrassing, and often desperate situations, in which he found himself during this arduous campaign. His firmness of purpose, and his pure and elevated patriotism, alone enabled him at this crisis, to hold on a right, and brave, and honourable course. That he saved Portugal in her hour of need by drawing Napoleon and his legions after him into Northern Spain, with deliberate purpose, cannot be doubted, and calamitous though was his retreat to Corunna, yet it was conducted with sagacity, intelligence, and fortitude, and it must be ever remembered to his credit, and to that of his troops, that it was carried through amid all the disorders that characterised it, without suffering any defeat *from the enemy*, and without losing a gun. Finally, when standing at bay at Corunna, when as yet the transports had not arrived, and the case seemed desperate indeed, when some of his Generals advised the opening of negotiations with Soult as the only means of escape from their plight, Moore spurned the suggestion with indignation. “His high spirit and clear judgment revolted at the idea, and he rejected the degrading advice without hesitation,” preferring for the honour of England to risk a battle, where, like Nelson’s Trafalgar, victory and death held out their arms to receive him, and “laurels were plentifully blended with cypress.”

leader, Mesilikatze, they had to clear out of the country. They made their way northwards, through the Transvaal, and, finally, arrived in this country, occupied by the Makalakas, and finding it a country entirely suited to them, they settled there. A country suited to them was one which produced good crops and plentiful cattle under the hands of people who were not strong enough to protect their property. Matabeleland and the neighbouring country, Mashonaland, were inhabited by people who had lots of cattle and lots of corn, and that was all that these Zulus wanted. They settled themselves there, and every year, when the time came round for the crops to be gathered in, or for cattle to be got, these Zulus, or Matabele, as they came to be called, helped themselves freely at their neighbours' expense, and they did it very systematically. One year they would raid in one direction, the next year they would raid in a totally different direction. They seldom visited a country at a less interval than four years. In this way they did not actually clean a district out, but gave it a few years in which to recuperate before they came upon it again for a fresh instalment of supplies. This system of freebooting they carried on for fifty years up to 1890.

In 1890, a body of white pioneers moved up by the north-west of the Transvaal, under the direction of Mr. Rhodes, got into Mashonaland, took possession of that country, and established their capital at Salisbury. Logenbula was at this time king of the Matabele, and claimed sovereign rights over Mashonaland; and his consent to this occupation on the part of the whites had to be purchased, the only sum that he would take for it was 1,000 Martini-Henry rifles and 100,000 rounds of ammunition. His people found the value of this possession when we came to blows last year.

After the whites were settled in Mashonaland, the Matabele did not remain quiet very long. In 1893, they tried their old game of raiding the Mashonas; but these were now under the protection of the white men who sent out their police and drove back the raiding parties. And as the Matabele still continued to threaten them, the whites organized an expedition which, starting from Salisbury and Victoria into Mashonaland, advanced into Matabeleland, and after a couple of fights, seized Buluwayo, which was Logenbula's head kraal. Logenbula himself fled northward and died in the bush.

One mistake the whites made on this campaign, and that was, that in fighting such Matabele regiments as they met,

stragglers and baggage were cut off by their cavalry, and having hiked for a couple of days to clear out the magazines, and organise transport (a halt which however necessary, might have been disastrous if a sudden flood in the river had not rendered it unfordable for twenty-four hours), the retreat was resumed in haste upon Astorga, on the 29th, covered by the cavalry, who, before evacuating Benevente, were indulged in an exciting skirmish with six hundred horsemen of the Imperial Guard. In a brilliant charge made by the 10th Hussars under Lord Raglan, which seems to have been timed to the moment, these chosen cavaliers of Napoleon were routed and overthrown with great slaughter—120 of them were killed and wounded, and 70 were taken prisoners, including a General of Division, Lefebvre-Desnouettes. It is believed that Napoleon was himself a witness of this incident from his head-quarters on the other bank of the river.

But this was the last beam of glory shed upon the English Army in this campaign until the sea was reached. From the day the retreat had commenced, insubordination had shown itself in the ranks, and the worst disorders had prevailed. In a march of only three days from the Cidron to the Esla, discipline had been relaxed to such a degree that already the officers had lost much of their authority over the men, and excesses fatal equally to the army and to the inhabitants had already commenced. It was a matter of importance to Moore to gain as rapidly as possible the mountainous country beyond Astorga, where he would be comparatively safe from the numerous and powerful French cavalry. But the forced marches which this effort entailed upon his troops demoralised them still more. Their condition became daily more deplorable. Frost and snow, thaws and rain and sleet, succeeded each other with merciless severity, and without intermission. The roads were broken up, the horses fell at every step, and waggons, ammunition, and supplies were abandoned at every turn. Even the military chest, containing £250,000 in dollars, was thrown over a precipice for use of conveyance for it could no longer be arranged. Worse than all, the "national vice of darkness" began to appear in the soldiers. The great vice of Peninsular and Vandalia was more fatal than the sword of the enemy, and when the rearguard which always preserved its ranks under severe and up the array, it had to force its way through a mob of every sort of soldiers, stragglers and murderers, who reeled out of the houses in disgusting crowds, or lay stretched on the roadside, an easy prey to the enemy's cavalry which were followed in close pursuit."

Amidst such shocking scenes, the army, on the 6th January, struggled into Lugo, and here Sir John Moore determined to stand and fight. The mere announcement of this intention was enough to restore the spirit of the troops. The confusion ceased at once, stragglers hastened to rejoin their colours, and the ranks were rapidly re-formed. On the morning of the 7th January, 1809, 19,000 men were drawn out in battle array impatiently awaiting the attack of the enemy. "A British army may be *gleaned* in a retreat," says one of its most experienced officers, "but it cannot be *reaped*. Whatever may be their misery, the soldiers will always be found clean at a review, and ready at a fight": and so the order to prepare for battle at Lugo acted like the wand of the enchanter, and in an instant, order, discipline, and willing subordination, were restored to the ranks.

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* "In ten days, and in the depth of winter, he had crossed the snowy ridge of the Guadarama, had traversed 200 miles of hostile country, and transported 50,000 men from Madrid to Astorga in a shorter time than a Spanish courier would have taken to travel the same distance!"—*Napier, I, 312.*

resumed his movement in retreat from Lugo at 10 P.M. on the night of the 8th, leaving his bivouac fires brightly burning to deceive the enemy.

But ill-fortune still pursued him relentlessly. Hardly had the march commenced when a violent tempest of wind and sleet arose, which not only distressed the men already exhausted by privations and hardships (greatly the result of their own misconduct), but also which scattered the bundles of straw which had been laid during the day to mark out the routes to be followed. In consequence, the Divisions, all but one, lost their way in the snow, and when day-light broke found themselves still in the neighbourhood of Lugo. This unfortunate accident, through the fatigue, disappointment, and depression of spirits, which it produced, again broke down the discipline of the men. The scenes of drunkenness and disorder witnessed at Bemibre and Villa Franca were repeated here, and the losses incurred in one short march out of Lugo were in consequence greater than all the previous losses during the retreat put together.*

The next day, the 10th, the army reached Corunna, but a fresh disappointment awaited the unfortunate Moore here, for the transports which had been ordered round from Vigo had not arrived. Adverse winds had delayed them, and it was not until the 14th that their friendly sails hove in sight. The embarkation of the sick and wounded was then commenced at once, and completed on the 15th. The artillery was put on board too, with the exception, of only six guns, as from the nature of the ground on which the battle must be fought, if the French attacked, it could be of little service. Finally, it was decided that, unless attacked in the meantime, the army itself should embark on the 16th.

It may be wondered why Soult delayed the assault so long. The simple truth is that the dreadful weather, and the bad roads, had fatigued and scattered his troops to an extent only less than they had affected the British, and it was not until the 15th that he had collected his Divisions, and was ready to attack. That evening the packets on both sides were engaged, but it was not until 2 o'clock in the afternoon of

| | Total. |
|---|--------|
| * Lost at, or previous to the arrival of the | |
| Army at the port of Lugo { Cavalry 65 } | |
| Army at the port of Lugo { Infantry . 1,122 } | 1,327 |
| Lost when the departure of the army { Cavalry 6 } | |
| from Lugo, and the embarkation at { Infantry . 2,627 } | 2,638 |
| Corunna. | |
| GRAND TOTAL | 4,013 |

the 16th January that the battle of Corunna was commenced. The British were about 14,500 strong disposed as shown in the accompanying sketch: the French were not less than 20,000, and were supported by a powerful artillery.

There were no grand tactics displayed by either side at the battle of Corunna. Soult relying on the strength of his position, and his superiority in numbers, and in artillery, resolved to waste no time in manœuvres, and ordered a general assault straight to the front. Attacking with their usual impetuosity, all along the line, the village of Elvina was early carried by the French, who then attempted to turn General Baird's right by the valley shown on the sketch. But Baird skilfully threw back his right so as to take these assailants in flank, and Moore at the same time, ordering up the reserve under Major-General E. Paget, this movement was defeated with heavy loss, and the enemy driven back in confusion on the village of Elvina, which again became the scene of an animated struggle. At the same time, the centre and left were heavily engaged, and the action became general all along the front.

At this moment, Sir David Baird was severely wounded, and shortly afterwards Sir John Moore was struck by a cannon-shot, which dashed him from his horse, breaking his shoulder and collar-bone, and leaving the arm hanging merely by the flesh. The flesh was torn away too from the ribs that covered the heart, and the end was inevitable. He had however strength enough to raise himself into a sitting posture, and he would not allow himself to be carried to the rear until he had watched the fight for some time, and was satisfied that the British were gaining ground, and would win the day. A party of Highlanders, the Black Watch, then bore him from the field in a blanket, but he made them halt occasionally that he might observe how the battle went, and always expressed satisfaction that the French were beaten back. The hilt of his sword was mixed up with his wound, but he would not allow it to be removed, saying—"It is as well as it is. I had rather it should go out of the field with me." To his old friend, Colonel Anderson, who was with him in his final moments, he observed—"You know I always wished to die in this way": and later when assured of victory, he said—"It is a great satisfaction to me to know that we have beaten the French." His last words, 'uttered,' says Napier, 'with an unsubdued spirit, as if anticipating the baseness of his posthumous calumniators,' were—"I hope the people of England will be satisfied! I hope my country will do me justice!"

A few minutes after this he died, and wrapped in his military cloak, was buried the same night in the citadel of Corunna. "The guns of the enemy paid his funeral honours: and Soult, with a noble feeling of respect for his valour, raised a monument to his memory."

Little more remains to be said. After the fall of Sir John Moore, Baird being badly wounded, the command devolved on Sir John Hope, by whom the struggle was continued with unabated energy till darkness put a stop to the fighting. By this time the British had been successful all along the line. They had carried the village of Palavia-abaxo on the left, and had finally expelled the enemy from Elvina in the centre: while on the right, Paget's attack had overthrown everything opposed to it: so that when night set in they were considerably in advance of their original positions, while the French were falling back everywhere in confusion. The loss of the English in this battle was 800: the French loss was between 2,000 and 3,000.

There was, however, nothing to be gained either by pursuit, or by offering to renew the fight on the following day. It was decided, therefore, to embark the army without delay, and sail for England, and so complete were the arrangements made that during the night the operation was carried out without confusion or difficulty, under cover of one brigade, which in its turn was protected during embarkation by the Spaniards who loyally held the town and Citadel of Corunna until the fleet had put to sea. But the misfortunes of the men who had fought so bravely were not ended yet. Hardly had the ships sailed when they were scattered by a terrible storm. Many were wrecked, and the remainder driving up Channel were glad to put into any port that offered. The soldiers thus thrown on shore were spread from the Land's End to Dover. Draggled, dirty, and diseased, their miserable state soon became the topic of every letter, and the theme of every newspaper along the coast.* Their gloomy narratives, "the usual exaggerations of men just escaped from perils and distresses," spread despondency throughout the land, and Sir John Moore's conduct of the campaign was loudly blamed on every side.

But his memory has long since been done ample justice to. To judge a commander by the event alone is as unjust as it is unreasonable. In Moore's case, we have but to consider, on the one hand, his insufficient means, his small numbers,

* *Napier, Vol. I, 357.*

his gigantic task, and on the other, to recollect the extraordinary and incredible difficulties by which he was surrounded—the treachery, folly, and wilful deception practised on him by the Spanish authorities, the glaring incapacity of the Spanish Generals, and the irritating and ill-timed interference of the British Ambassador, Mr. Frere—to form some faint picture of the embarrassing, and often desperate situations, in which he found himself during this arduous campaign. His firmness of purpose, and his pure and elevated patriotism, alone enabled him at this crisis, to hold on a right, and brave, and honourable course. That he saved Portugal in her hour of need by drawing Napoleon and his legions after him into Northern Spain, with deliberate purpose, cannot be doubted, and calamitous though was his retreat to Corunna, yet it was conducted with sagacity, intelligence, and fortitude, and it must be ever remembered to his credit, and to that of his troops, that it was carried through amid all the disorders that characterised it, without suffering any defeat *from the enemy*, and without losing a gun. Finally, when standing at bay at Corunna, when as yet the transports had not arrived, and the case seemed desperate indeed, when some of his Generals advised the opening of negotiations with Soult as the only means of escape from their plight, Moore spurned the suggestion with indignation. “His high spirit and clear judgment revolted at the idea, and he rejected the degrading advice without hesitation,” preferring for the honour of England to risk a battle, where, like Nelson’s Trafalgar, victory and death held out their arms to receive him, and “laurels were plentifully blended with cypress.”

THE CAMPAIGN IN RHODESIA.

A LECTURE GIVEN IN DUBLIN IN 1897.

BY LIEUT.-COL. R. S. BADEN-POWELL, 13TH HUSSARS.

In all our many small campaigns, it is generally possible to pick up some lessons, and from this last one I think that we can all learn something.

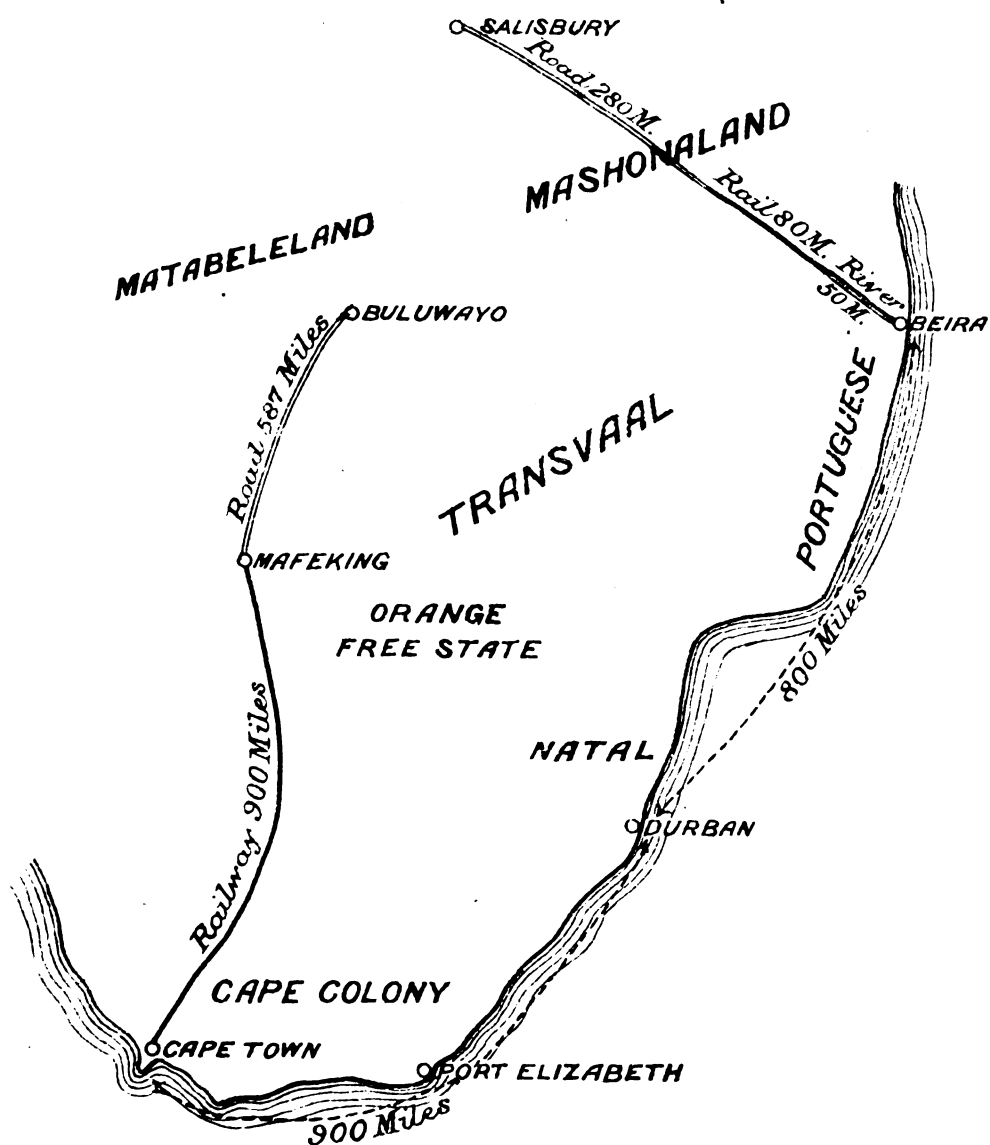
Now, to get an idea of the origin of the campaign, it is as well to have some knowledge of the geography of the country. I know that until I got up there myself I had very vague notions as to the positions of places and the distances between them, and I suppose that it is the same with ninety-nine out of a hundred people. I have here drawn, very roughly, because it has been done in the last half hour, a sketch map, to show approximately how the country lies. This map shows South Africa generally, Cape Colony at the bottom, then Natal, the Orange Free State, and Bechuanaland to the west; then the Transvaal and Portuguese territory on the east, lying all along the coast, and north of the Transvaal comes the country in which we are now interested, *i.e.*, Matabeleland, Mashonaland, and the country about the Zambesi, which are included under the name of Rhodesia, and which in size are equal to Italy, France, and Spain, put together. Matabeleland and Mashonaland, the theatre of the recent operations occupy the water-shed between the Zambesi and the Limpopo rivers, Mashonaland being the eastward country and Matabeleland being the westward of the two. I would propose in my lecture, firstly, to give you a short history of the campaign, and, secondly, some of the lessons which we learnt from it.

PART I.

NARRATIVE OF THE CAMPAIGN.

Well, to go into the origin of the rebellion, and I will not be longer than I can help. Sixty years ago Matabeleland was occupied by a native race called the Makalakas, who had no very good points, nor any particularly bad ones, but they were not warlike. At this time, down in Zululand, a big portion of the Zulu nation rebelled against their king, and under their

DIAGRAM **TO SHOW** **SUPPLY ROUTES** **TO** **RHODESIA.**



leader, Mosilikatze, they had to clear out of the country. They made their way northwards, through the Transvaal, and, finally, arrived in this country, occupied by the Makalakas, and finding it a country entirely suited to them, they settled there. A country suited to them was one which produced good crops and plentiful cattle under the hands of people who were not strong enough to protect their property. Matabeleland and the neighbouring country, Mashonaland, were inhabited by people who had lots of cattle and lots of corn, and that was all that these Zulus wanted. They settled themselves there, and every year, when the time came round for the crops to be gathered in, or for cattle to be got, these Zulus, or Matabele, as they came to be called, helped themselves freely at their neighbours' expense, and they did it very systematically. One year they would raid in one direction, the next year they would raid in a totally different direction. They seldom visited a country at a less interval than four years. In this way they did not actually clean a district out, but gave it a few years in which to recuperate before they came upon it again for a fresh instalment of supplies. This system of freebooting they carried on for fifty years up to 1890.

In 1890, a body of white pioneers moved up by the north-west of the Transvaal, under the direction of Mr. Rhodes, got into Mashonaland, took possession of that country, and established their capital at Salisbury. Logenbula was at this time king of the Matabele, and claimed sovereign rights over Mashonaland; and his consent to this occupation on the part of the whites had to be purchased, the only sum that he would take for it was 1,000 Martini-Henry rifles and 100,000 rounds of ammunition. His people found the value of this possession when we came to blows last year.

After the whites were settled in Mashonaland, the Matabele did not remain quiet very long. In 1893, they tried their old game of raiding the Mashonas; but these were now under the protection of the white men who sent out their police and drove back the raiding parties. And as the Matabele still continued to threaten them, the whites organized an expedition which, starting from Salisbury and Victoria into Mashonaland, advanced into Matabeleland, and after a couple of fights, seized Buluwayo, which was Logenbula's head kraal. Logenbula himself fled northward and died in the bush.

One mistake the whites made on this campaign, and that was, that in fighting such Matabele regiments as they met,

they thought they were fighting the whole Matabele army ; whereas, in point of fact, the main portion of that army was at this time away on an expedition near the Zambesi, and the force encountered by the whites, consisted of merely a few regiments left for the protection of the women and cattle.

When the main army returned from the Zambesi, they found their country in the hands of the whites, and their king dead. They were without a head to lead them, and they thought that the whites, following their own custom, would probably clear out of the country again when they had sucked it dry of cattle and other supplies. But their discontent began to grow when they found the whites continued to remain in the country during 1894 ; and in 1895, the Matabele began to think it was time to turn them out if they were not going of their own accord. Moreover, various events occurred which added to their dislike of the whites. For one thing, there was a scarcity of rain, and draught came on their crops ; then locusts came in swarms, a kind of locust too that had never been seen in the country before, and the natives all said that this was the work of the white man. Then, to top all, came the rinderpest, which killed all their cattle ; this, of course, was put down to the work of the white man. Thus their bitter feelings were aroused, and having a good supply of arms in their possession, they were only waiting their chance to go for the whites, and that chance came at the time of Dr. Jameson's raid. The Doctor took from the country, practically, all the armed forces that there were there, and marched them down to the Transvaal. The native chiefs, seeing this, and hearing of the defeat of Jameson's force, laid their plans for clearing out the women and weaklings that had been left behind.

To get their orders conveyed to the whole nation, they employed the priests of their god, the Mlimo ; this god was an invisible deity, believed in by the Makalakas, Mashonas, and Matabele alike. There were about half a dozen priests living in different districts of the country, and these were wont to give out prophecies and orders of the god to the people, who believed them and obeyed them without question.

The leaders of the rebellion sent out through this agency their orders to the people, and these were that, on the new moon at the end of March last year, all the men were to arm themselves, and the regiments were to assemble in the neighbourhood of Buluwayo, and on the night of the new moon they were to go into the town and kill every white person they

could find. They were to leave one side of the town open—the south-western side—so that any whites that might escape in the darkness would thus find a bolt-hole left open to them, and they would then avail themselves of the road to Mangwe and Mafeking to escape by. After slaughtering the inhabitants of Buluwayo, the rebels were then to attack and destroy all outlying farms and townships.

The probability is that their plan would have come off perfectly well, and the white men would have been cleared out, but luckily it miscarried. In coming to the rendezvous to carry out their plan of murdering the whites in Buluwayo, some of the warriors could not resist the temptation of falling upon outlying farmers and prospectors, and they murdered numbers of these. But some few escaped and got into Buluwayo, and gave information just in time. Mr. Selous, whose name you all know, was one of these, and riding in with his wife from their farm, some 30 miles east of Buluwayo, he gave warning to the people in the town.

These, to the number of about 1,000, immediately went into laager; that is, they fortified the Market-hall in the centre of the great open Market-square, and formed a rampart round it of a double line of bullock wagons, and stocked the place with supplies of food and ammunition, and organized all the able-bodied men as a defence force. Two or three nights afterwards the Matabele arrived, and came into the town in the dark; but they found the houses shut up and no lights burning, because the inhabitants were all living in laager, and they got suspicious and frightened, and said, amongst themselves, the white people have put out all the lights; it means that they know we are coming, and they are laying a trap for us, and did not attack, but retired outside the town again, and camped round it on three sides to the number of about 10,000. They still left the Mangwe road open, hoping that the whites would avail themselves of it to escape by; but the whites only used it for the very different purpose of getting up supplies and reinforcements.

Meantime the other townships of Matabeleland also heard of the murders of farmers in their neighbourhood, and went into laager in good time. Mashonaland was all the time quite clear of rebels and peaceful; directly they heard of the outbreak in Matabeleland, the men of Salisbury formed themselves into a relief column and marched down to assist Buluwayo. At the same time, in Cape Colony, Colonel

Plumer, of the York and Lancaster Regiment, raised a corps of Mounted Rifles, and moved up by Mafeking to the relief of Matabeleland. A corps of Cape Boys was also organized by Major Robertson, an old Royal Dragoon. These Cape Boys were natives of Cape Colony, generally speaking English or Dutch, and clothed like Europeans; they had not before been known as specially good fighting men, but during this campaign they proved themselves excellent troops in action when well led.

Meantime, while these reinforcements were coming up—it takes nearly two months—the people in Buluwayo organized a field force, and did their best to drive the enemy off; this they could only do by making frequent sallies from the town. Of course they had to work under great difficulties from want of proper organization and from the presence of too many heads; it was often difficult to know who was in command; consequently, though they fought with great dash and pluck, their efforts were not sufficiently in combination to have the best effect on the enemy. Various leaders tried their hand at the game; but it was only after a month of it that Captain Macfarlane, a former 9th Lancer officer, managed to deal the enemy a really heavy blow. But even this only shifted the enemy a few miles back from the town. In each of the many fights and patrols which took place during this time, the utmost gallantry was displayed by the men, and individual acts of personal prowess were as common as peas; several cases have since been recommended for the Victoria Cross.

Well, then, Sir Frederick Carrington was sent for to take command of the troops on the spot, and, with two or three other inferior officers, I went up as one of his staff. On arriving at Buluwayo, we found plenty to keep us occupied, for the enemy were still round about, although driven back from the neighbourhood of the town by the unremitting exertions of the Buluwayo field force and of Colonel Plumer's regiment. Our first care on arrival was to look into the stores of supplies, and we found that these were things that had not, so far, been duly thought of; the supplies were running low, and there was no systematic plan for bringing up more.

Rinderpest had killed off the only transport of the country, *i.e.*, oxen, and the road from Buluwayo down to the railway was 587 miles long, and a bad road at that, heavy sand, and no water; so it was a very difficult job to work it with mules. Oxen were the only animals that could do it properly, and they were all dead. At one place on the road we had passed two

hundred wagons abandoned owing to the death of their teams of oxen, over 3,000 animals. That was only one place on the road; but abandoned wagons and dead oxen were frequent all along it. Well, we set to work to get all the transport that could be got in Cape Colony. The Boers would not let us have much out of the Transvaal, as they feared scarcity there themselves. But from Cape Colony they sent all the mules and wagons they could buy; every train brought instalments of these to Mafeking, whence they were sent up the road as fast as they could come; but it took nearly six weeks for a wagon to get up, and the loss of mules on the road from want of water and food, and from sickness, was enormous. These efforts merely enabled us to keep ourselves going in food from day to day; but we had also to make provision for the wet weather due in October and November, when transports would be unable to move, and unless we had a proper reserve of food in hand, we should be starved out of the country.

Then, in addition to getting food in, we had to deal with that of getting the enemy out. Sir Frederick Carrington's plan was first to drive back this lot to the northward of Buluwayo, to break them up, and to plant forts in the best parts of their country in order to hold the ground won; this would prevent their re-assembling after their being dispersed, and would prevent any but friendly natives from sowing or reaping their crops. To effect this, we formed three flying columns, and sent them out in three different directions—north-east, north, and north-west; they tackled such of the enemy as they could meet with, broke them up, and sent them flying northwards; they left garrisons in different forts about the country, and were back in Buluwayo by the first week in July.

As an instance of the fanatical zeal of the Matabele, I should like to give you an example that occurred at the time when these columns were started northwards. Late one evening, just as we were closing up the office—and office hours there went on till midnight sometimes—Sir Charles Metcalf came in rather draggled-tailed, and said that having been up to visit one of our camps outside the town, he had come across an army of Matabele. We could scarcely believe that the enemy could be so close outside as he had said; however, I spent the night examining them, and found that they were there sure enough, and in the morning we got together about 200 men to attack them. The enemy were about 1,200 to 1,800 strong, and they were camped along a ridge on the far side of a small stream. They did

not seem at all disturbed at our moving out against them, and simply sat watching our advance. We formed our line, all mounted men, and crossed the stream that lay between us, and then charged right up to them. We had no swords nor other weapons for a charge, but a cavalry charge seemed a right thing to do, as the enemy was there waiting for us, so we went smack into them, and they did not seem, till then, to think that we were really going to attack them; but as we came up out of the stream towards them, they opened fire on us with some hurried volleys, and as soon as we were in among them, they broke up and fled, and we pursued for nearly five miles.

We afterwards found out from prisoners that this impi, or regiment, was formed of detachments representing all the other impis of the rebels. They had been told by the Mlimo that the white people in Buluwayo were nearly dead of rinderpest, and that they were to come and sit on this rise outside Buluwayo, and lure the survivors out to them, and that, as soon as the whites attempted to cross the stream, the Mlimo would cause the stream to open and swallow them up; the impi was then to take possession of the town, and to keep it in good order for Logenbula, who was about to come to life again. This yarn was most thoroughly believed by the rebels, and when the stream failed to swallow us up, they became quite dazed with astonishment. But that was the sort of belief in which they fought on all occasions. They were fanatics, they believed everything the Mlimo told them, and this really accounted for much of their courage. On various occasions they had attacked us with the greatest bravery in spite of the maxims and other fire we brought to bear on them; often they attacked right up to the muzzles of the guns, simply because their old Mlimo had told them that our bullets would turn into drops of water on striking them.

Many of the fugitives from the impis broken up in the north made their way down to the Matopo hills, twenty-five miles south of Buluwayo, where already large numbers of rebels were massed; it then became my duty to go down and reconnoitre these mountains, and it took me nearly a month of night work to find out where the enemy were posted. This range of hills is a most awfully broken bit of country; mountains, about 800 feet high, consisting of piled-up masses of rock and great big boulders, some of them smooth, dome-shaped ones, as large as a house, others great big blocks, as large as this room. These hills are all honey-combed with caves and

overgrown with bush, and among them the enemy take up their position. There were now seven different impi in these hills, each impi composed of from 1,000 to 1,500 men. The Matopo hills extend for nearly sixty miles east and west, and twenty miles north and south; the enemy were generally distributed along the northern edge of the range.

At first we tried reconnoitring them in the ordinary way, taking out a patrol of half a squadron; but, finally, we reduced it to a few men, because we found it difficult to move with a large party in that country, and the enemy always had warning of our approach and disappeared, and we got no value for our money. In the end it reduced itself to one's going alone, with a reliable native, to keep a look-out and hold one's horse. We used to start in the night from Buluwayo, or from one of the outlying forts, and make our way through the first line of hills in the dark, because on these hills lay the enemy's outposts; the main camps of the enemy were in the mountains, and in the early dawn, when the warriors lit up their fires to warm themselves after the cold night, we were able to mark their position very well; and then we had to get away again, and this was generally where the excitement of the day came in, because they used sometimes to hunt us. But they are very suspicious where they see small numbers, and they are very slow about coming close up to you, as they are afraid of being lured into an ambush, and luckily for us they mistrusted their powers of shooting at a moving object. After a time they got to know me, and they wanted to catch me alive, but we never gave them the chance. In this way we gradually found out the position of each of the impi, and of what was equally important, the hiding-places of the women and cattle.

The women in this country and in war time are more important than in some other countries, because they practically form the transport and commissariat department; the enemy relied on their women to fetch in their supplies from outlying districts, and to carry their supplies when they wanted to shift their position. Whenever we could locate a camp of the women, we knew we had got their transport, and could starve the rebels into submission.

On the Mangwe road a whole chain of forts had been erected to ensure the safety of our line of supply; but it was rumoured that the rebels intended now to cut this road, and that the priest of the Mlimo in the western country near Mangwe intended to call up the people there to carry this out, and we, therefore, endeavoured to capture this priest. It

could not be done by a large party; therefore, Mr. Armstrong, a Native Commissioner, and the Scout, Burnham, went together to effect his arrest. But the people became suspicious and looked dangerous, so Burnham shot the priest, and the two whites only got away by the skin of their teeth. But the effect of killing this one man probably prevented the whole province from breaking out, and left the road clear.

Just when we had finished reconnoitring the Matopos, and were preparing the forces for attacking these strongholds, there came upon us the awful thunderclap that the rebellion had spread into Mashonaland, that the Mashonas were murdering farmers right and left, and that different towns were all going into larger. The outbreak was brought about by a party of Matabele, who, after being defeated in one of our fights, had made their way up into the Hartley Hill district, and had there spread the news amongst the Mashonas that every white man among the Matabele had been killed, and that no natives had been killed since the Nimo turned all hostile bullets into water; they, therefore, advised the Mashonas also to rise in rebellion, and to drive the white men out of their country into the sea. They also said that Lobengula had come to life again, and that if the Mashonas did not destroy the white men in their country, the whole of the Matabele nation would come down upon them and wipe them out. Accordingly, the Mashonas rose, murdered the outlying settlers, and threatened the towns. They also held the main road by which supplies came up from the sea and Beira.

As I told you before, Salisbury had sent a relief column to Bulawayo, and we had, therefore, to send them back half-foot to the relief of their own people, and we sent up two other small columns to their assistance. But, meantime, they behaved very pluckily themselves in Victoria and Salisbury and elsewhere. Patrols were sent out to rescue outlying farmers and performed many heroic acts. One patrol of thirteen men, under Captain Nesbit, went out from Salisbury to rescue a small party at Mazoe, among whom were some women. They rigged up a wagonette, with corrugated iron, to make it bullet-proof, and started off. Half way out they met the enemy in force, but instead of turning back for reinforcements, they fought their way through the enemy's ranks, and farmers, and brought them back, fighting their way out. They went; and out of their little party of thirteen, only five were left; and five wounded; also seven horses were killed. This was certainly one of the most out of several.

The enemy had cut the telegraph line between Salisbury and Buluwayo, but another line went a roundabout way by Victoria and Tuli, and through this we kept up communication with Salisbury.

This outbreak of the Mashonas put nearly 20,000 more enemy into the field against us, and the white armed men in Mashonaland only amounted to nearly 2,000. The General now called for Imperial troops from Cape Colony, and columns were immediately sent up. Five hundred Mounted Infantry and Engineers, under Colonel Alderson, with their own supplies and transport, were ordered up to Mashonaland by sea *via* Beira, and for Matabeleland, a squadron of the 7th Hussars, with the York and Lancaster Mounted Infantry, under Major Ridley, were sent up from Mafeking *via* Mangwe, to Buluwayo, and another column of 7th Hussars and West Riding Mounted Infantry, under Colonel Paget, were sent by Tuli and Victoria to Gwelo. But these all took seven weeks to get up to the scene of operation.

Meantime we had to go on as best we could with our attacks on the Matopos. Here we had three or four good fights in the worst possible country at the following strongholds: Inugu, Babyan, and Sikombo, as well as various attacks and raids on smaller strongholds. We lost a good many men in these attacks, as the enemy gradually gave up all idea of attacking us in the open, and got into strong positions among rocks and caves, and stuck to them like wax; and they had plenty of arms and supplies, they had plenty of Martini-Henrys, a good number of Lee-Metfords, and a number of elephant guns, and other firearms of sorts. They made their own powder, and understood re-loading old cartridge cases, and when they could not get lead, they manufactured their bullets out of any material they could lay hands on. Sometimes it was a stone, covered with lead, to make it fit the bore, or telegraph wire cut into lengths of 3 or 4 inches, and pot-legs were a favourite missile; these were legs broken off the three-legged iron cooking pots used by the Kaffirs. On one ~~man~~ we found a number of brass taps hammered down into ~~missiles~~ to fit his gun. As these were generally fired at close ~~range~~: you may imagine what awful wounds they frequently ~~made~~. Altogether, it was not pleasant work tackling them in ~~the~~ but if we have time; I will tell you what were our ~~the~~ this. The result of the fighting was ~~the~~ weeks of it, we got them to come out, ~~the~~ mission after they had lost pretty heavily.

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the same effect, and we were able at once to move on from this spot to tackle the other rebels to the north of us.

The day after Uwini was shot, we moved on into the forest, to go for an impi reported on the Gwelo river ; but luckily we captured some women on our way, and these informed us that the impi was already on the move, getting away from a white army approaching from the eastward. This was evidently Colonel Paget's column coming up, so that our obvious course was at once to move north and cut off the line of retreat of this impi, which we eventually did. We carried out the clearance of the forest by dividing up the column into three strong parties, each having its own tract of country told off to it, and we hunted the people about until they were broken up and glad enough to come in and surrender. But harassing them was harassing also to ourselves. Food was very scarce, as we could not take wagons into this country, and had to carry all we wanted on our horses, and water was sometimes altogether absent. The rivers on the map look very nice and blue ; but there they are mere beds of sand, in which you have to dig and scrape for water, and it is not particularly good when you get it. Our horses soon began to give out, and we had to do much of our work on foot, and then our boots gave out. Although living on half rations, we soon ran out of tinned meat, and the game being dead of rinderpest, we had at one time to kill horses for food. But as matters got worse, Tommy Atkins always got more cheerful, and our only regret was that we never succeeded in getting a good fight. Once some of the Mounted Infantry had a chance, and acted as cavalry, that is to say, they fixed bayonets and charged like Lancers.

Having cleared the forest, we came back against the impi, which lay between us and Buluwayo, but on our approach, they sent in and surrendered. When within forty miles of Buluwayo, I got a note from the General, which was evidently subsequent to some message which he had sent me, but which had never reached me. This note just mentioned something about "when you and Paget have finished Wedza, I want you to do this, that and the other.", From this sentence it was evident that he had sent some order previously that I was to co-operate with Paget against Wedza ; so on the strength of it, I at once started off to get to Wedza's, which was 100 miles distant in a south-easterly direction, and I sent runners to Buluwayo with messages to be telegraphed to Paget to that effect. Wedza's stronghold was a celebrated place being a large mountain, with half a dozen high peaks on it,

leader, Mosilikatze, they had to clear out of the country. They made their way northwards, through the Transvaal, and, finally, arrived in this country, occupied by the Makalakas, and finding it a country entirely suited to them, they settled there. A country suited to them was one which produced good crops and plentiful cattle under the hands of people who were not strong enough to protect their property. Matabeleland and the neighbouring country, Mashonaland, were inhabited by people who had lots of cattle and lots of corn, and that was all that these Zulus wanted. They settled themselves there, and every year, when the time came round for the crops to be gathered in, or for cattle to be got, these Zulus, or Matabele, as they came to be called, helped themselves freely at their neighbours' expense, and they did it very systematically. One year they would raid in one direction, the next year they would raid in a totally different direction. They seldom visited a country at a less interval than four years. In this way they did not actually clean a district out, but gave it a few years in which to recuperate before they came upon it again for a fresh instalment of supplies. This system of freebooting they carried on for fifty years up to 1890.

In 1890, a body of white pioneers moved up by the north-west of the Transvaal, under the direction of Mr. Rhodes, got into Mashonaland, took possession of that country, and established their capital at Salisbury. Logenbula was at this time king of the Matabele, and claimed sovereign rights over Mashonaland; and his consent to this occupation on the part of the whites had to be purchased, the only sum that he would take for it was 1,000 Martini-Henry rifles and 100,000 rounds of ammunition. His people found the value of this possession when we came to blows last year.

After the whites were settled in Mashonaland, the Matabele did not remain quiet very long. In 1893, they tried their old game of raiding the Mashonas; but these were now under the protection of the white men who sent out their police and drove back the raiding parties. And as the Matabele still continued to threaten them, the whites organized an expedition which, starting from Salisbury and Victoria into Mashonaland, advanced into Matabeleland, and after a couple of fights, seized Buluwayo, which was Logenbula's head kraal. Logenbula himself fled northward and died in the bush.

One mistake the whites made on this campaign, and that was, that in fighting such Matabele regiments as they met,

they thought they were fighting the whole Matabele army; whereas, in point of fact, the main portion of that army was at this time away on an expedition near the Zambesi, and the force encountered by the whites, consisted of merely a few regiments left for the protection of the women and cattle.

When the main army returned from the Zambesi, they found their country in the hands of the whites, and their king dead. They were without a head to lead them, and they thought that the whites, following their own custom, would probably clear out of the country again when they had sucked it dry of cattle and other supplies. But their discontent began to grow when they found the whites continued to remain in the country during 1894; and in 1895, the Matabele began to think it was time to turn them out if they were not going of their own accord. Moreover, various events occurred which added to their dislike of the whites. For one thing, there was a scarcity of rain, and draught came on their crops; then locusts came in swarms, a kind of locust too that had never been seen in the country before, and the natives all said that this was the work of the white man. Then, to top all, came the rinderpest, which killed all their cattle; this, of course, was put down to the work of the white man. Thus their bitter feelings were aroused, and having a good supply of arms in their possession, they were only waiting their chance to go for the whites, and that chance came at the time of Dr. Jameson's raid. The Doctor took from the country, practically, all the armed forces that there were there, and marched them down to the Transvaal. The native chiefs, seeing this, and hearing of the defeat of Jameson's force, laid their plans for clearing out the women and weaklings that had been left behind.

To get their orders conveyed to the whole nation, they employed the priests of their god, the Mumbo; this god was an invisible deity, believed in by the Makalakas, Mashonas, and Matabele alike. There were about half a dozen priests living in different districts of the country, and these were wont to give out prophecies and orders of the god to the people, who believed them and obeyed them without question.

The leaders of the rebellion sent out through this agency their orders to the people, and these were that, on the new moon at the end of March last year, all the men were to arm themselves, and the regiments were to assemble in the neighbourhood of Bulawayo, and on the night of the new moon they were to go into the town and kill every white person they

could find. They were to leave one side of the town open—the south-western side—so that any whites that might escape in the darkness would thus find a bolt-hole left open to them, and they would then avail themselves of the road to Mangwe and Mafeking to escape by. After slaughtering the inhabitants of Buluwayo, the rebels were then to attack and destroy all outlying farms and townships.

The probability is that their plan would have come off perfectly well, and the white men would have been cleared out, but luckily it miscarried. In coming to the rendezvous to carry out their plan of murdering the whites in Buluwayo, some of the warriors could not resist the temptation of falling upon outlying farmers and prospectors, and they murdered numbers of these. But some few escaped and got into Buluwayo, and gave information just in time. Mr. Selous, whose name you all know, was one of these, and riding in with his wife from their farm, some 30 miles east of Buluwayo, he gave warning to the people in the town.

These, to the number of about 1,000, immediately went into laager; that is, they fortified the Market-hall in the centre of the great open Market-square, and formed a rampart round it of a double line of bullock wagons, and stocked the place with supplies of food and ammunition, and organized all the able-bodied men as a defence force. Two or three nights afterwards the Matabele arrived, and came into the town in the dark; but they found the houses shut up and no lights burning, because the inhabitants were all living in laager, and they got suspicious and frightened, and said, amongst themselves, the white people have put out all the lights; it means that they know we are coming, and they are laying a trap for us, and did not attack, but retired outside the town again, and camped round it on three sides to the number of about 10,000. They still left the Mangwe road open, hoping that the whites would avail themselves of it to escape by; but the whites only used it for the very different purpose of getting up supplies and reinforcements.

Meantime the other townships of Matabeleland also heard of the murders of farmers in their neighbourhood, and went into laager in good time. Mashonaland was all the time quite clear of rebels and peaceful; directly they heard of the outbreak in Matabeleland, the men of Salisbury formed themselves into a relief column and marched down to assist Buluwayo. At the same time, in Cape Colony, Colonel

Plumer, of the York and Lancaster Regiment, raised a corps of Mounted Rifles, and moved up by Mafeking to the relief of Matabeleland. A corps of Cape Boys was also organized by Major Robertson, an old Royal Dragoon. These Cape Boys were natives of Cape Colony, generally speaking English or Dutch, and clothed like Europeans; they had not before been known as specially good fighting men, but during this campaign they proved themselves excellent troops in action when well led.

Meantime, while these reinforcements were coming up—it takes nearly two months—the people in Buluwayo organized a field force, and did their best to drive the enemy off; this they could only do by making frequent sallies from the town. Of course they had to work under great difficulties from want of proper organization and from the presence of too many heads; it was often difficult to know who was in command; consequently, though they fought with great dash and pluck, their efforts were not sufficiently in combination to have the best effect on the enemy. Various leaders tried their hand at the game; but it was only after a month of it that Captain Macfarlane, a former 9th Lancer officer, managed to deal the enemy a really heavy blow. But even this only shifted the enemy a few miles back from the town. In each of the many fights and patrols which took place during this time, the utmost gallantry was displayed by the men, and individual acts of personal prowess were as common as peas; several cases have since been recommended for the Victoria Cross.

Well, then, Sir Frederick Carrington was sent for to take command of the troops on the spot, and, with two or three other inferior officers, I went up as one of his staff. On arriving at Buluwayo, we found plenty to keep us occupied, for the enemy were still round about, although driven back from the neighbourhood of the town by the unremitting exertions of the Buluwayo field force and of Colonel Plumer's regiment. Our first care on arrival was to look into the stores of supplies, and we found that these were things that had not, so far, been duly thought of; the supplies were running low, and there was no systematic plan for bringing up more.

Rinderpest had killed off the only transport of the country, *i.e.*, oxen, and the road from Buluwayo down to the railway was 587 miles long, and a bad road at that, heavy sand, and no water; so it was a very difficult job to work it with mules. Oxen were the only animals that could do it properly, and they were all dead. At one place on the road we had passed two

hundred wagons abandoned owing to the death of their teams of oxen, over 3,000 animals. That was only one place on the road; but abandoned wagons and dead oxen were frequent all along it. Well, we set to work to get all the transport that could be got in Cape Colony. The Boers would not let us have much out of the Transvaal, as they feared scarcity there themselves. But from Cape Colony they sent all the mules and wagons they could buy; every train brought instalments of these to Mafeking, whence they were sent up the road as fast as they could come; but it took nearly six weeks for a wagon to get up, and the loss of mules on the road from want of water and food, and from sickness, was enormous. These efforts merely enabled us to keep ourselves going in food from day to day; but we had also to make provision for the wet weather due in October and November, when transports would be unable to move, and unless we had a proper reserve of food in hand, we should be starved out of the country.

Then, in addition to getting food in, we had to deal with that of getting the enemy out. Sir Frederick Carrington's plan was first to drive back this lot to the northward of Buluwayo, to break them up, and to plant forts in the best parts of their country in order to hold the ground won; this would prevent their re-assembling after their being dispersed, and would prevent any but friendly natives from sowing or reaping their crops. To effect this, we formed three flying columns, and sent them out in three different directions—north-east, north, and north-west; they tackled such of the enemy as they could meet with, broke them up, and sent them flying northwards; they left garrisons in different forts about the country, and were back in Buluwayo by the first week in July.

As an instance of the fanatical zeal of the Matabele, I should like to give you an example that occurred at the time when these columns were started northwards. Late one evening, just as we were closing up the office—and office hours there went on till midnight sometimes—Sir Charles Metcalf came in rather draggled-tailed, and said that having been up to visit one of our camps outside the town, he had come across an army of Matabele. We could scarcely believe that the enemy could be so close outside as he had said; however, I spent the night examining them, and found that they were there sure enough, and in the morning we got together about 200 men to attack them. The enemy were about 1,200 to 1,800 strong, and they were camped along a ridge on the far side of a small stream. They did

not seem at all disturbed at our moving out against them, and simply sat watching our advance. We formed our line, all mounted men, and crossed the stream that lay between us, and then charged right up to them. We had no swords nor other weapons for a charge, but a cavalry charge seemed a right thing to do, as the enemy was there waiting for us, so we went smack into them, and they did not seem, till then, to think that we were really going to attack them; but as we came up out of the stream towards them, they opened fire on us with some hurried volleys, and as soon as we were in among them, they broke up and fled, and we pursued for nearly five miles.

We afterwards found out from prisoners that this impi, or regiment, was formed of detachments representing all the other impis of the rebels. They had been told by the Mimo that the white people in Buluwayo were nearly dead of rinderpest, and that they were to come and sit on this rise outside Buluwayo, and lure the survivors out to them, and that, as soon as the whites attempted to cross the stream, the Mimo would cause the stream to open and swallow them up; the impi was then to take possession of the town, and to keep it in good order for Logenbula, who was about to come to life again. This yarn was most thoroughly believed by the rebels, and when the stream failed to swallow us up, they became quite dazed with astonishment. But that was the sort of belief in which they fought on all occasions. They were fanatics, they believed everything the Mimo told them, and this really accounted for much of their courage. On various occasions they had attacked us with the greatest bravery in spite of the maxims and other fire we brought to bear on them; yet on they attacked right up to the muzzles of the guns, simply because their old Mimo had told them that our bullets would turn into drops of water on striking them.

Many of the fugitives from the impis broken up in the north made their way down to the Matopo hills, twenty-five miles south of Buluwayo, where already large numbers of rebels were massed; it then became my duty to go down and reconnoitre these mountains, and it took me nearly a month of night work to find out where the enemy were posted. This range of hills is a most awfully broken bit of country; mountains, about 800 feet high, consisting of piled-up masses of rock and great big boulders, some of them smooth, dome-shaped ones, as large as a house, others great big blocks, as large as this room. These hills are all honey-combed with caves and

overgrown with bush, and among them the enemy take up their position. There were now seven different impi in these hills, each impi composed of from 1,000 to 1,500 men. The Matopo hills extend for nearly sixty miles east and west, and twenty miles north and south; the enemy were generally distributed along the northern edge of the range.

At first we tried reconnoitring them in the ordinary way, taking out a patrol of half a squadron; but, finally, we reduced it to a few men, because we found it difficult to move with a large party in that country, and the enemy always had warning of our approach and disappeared, and we got no value for our money. In the end it reduced itself to one's going alone, with a reliable native, to keep a look-out and hold one's horse. We used to start in the night from Buluwayo, or from one of the outlying forts, and make our way through the first line of hills in the dark, because on these hills lay the enemy's outposts; the main camps of the enemy were in the mountains, and in the early dawn, when the warriors lit up their fires to warm themselves after the cold night, we were able to mark their position very well; and then we had to get away again, and this was generally where the excitement of the day came in, because they used sometimes to hunt us. But they are very suspicious where they see small numbers, and they are very slow about coming close up to you, as they are afraid of being lured into an ambush, and luckily for us they mistrusted their powers of shooting at a moving object. After a time they got to know me, and they wanted to catch me alive, but we never gave them the chance. In this way we gradually found out the position of each of the impi, and of what was equally important, the hiding-places of the women and cattle.

The women in this country and in war time are more important than in some other countries, because they practically form the transport and commissariat department; the enemy relied on their women to fetch in their supplies from outlying districts, and to carry their supplies when they wanted to shift their position. Whenever we could locate a camp of the women, we knew we had got their transport, and could starve the rebels into submission.

On the Mangwe road a whole chain of forts had been erected to ensure the safety of our line of supply; but it was rumoured that the rebels intended now to cut this road, and that the priest of the Mlimo in the western country near Mangwe intended to call up the people there to carry this out, and we, therefore, endeavoured to capture this priest. It

could not be done by a large party; therefore, Mr. Armstrong a Native Commissioner, and the Scout, Burnham, went there together to effect his arrest. But the people became suspicious and looked dangerous, so Burnham shot the priest, and the two whites only got away by the skin of their teeth. But the effect of killing this one man probably prevented the whole province from breaking out, and left the road clear.

Just when we had finished reconnoitring the Matopos, and were preparing the forces for attacking these strongholds, there came upon us the awful thunderclap that the rebellion had spread into Mashonaland, that the Mashonas were murdering farmers right and left, and that different towns were all going into larger. The outbreak was brought about by a party of Matabele, who, after being defeated in one of our fights, had made their way up into the Hartley Hill district, and had there spread the news amongst the Mashonas that every white man among the Matabele had been killed, and that no natives had been killed since the Mlimo turned all hostile bullets into water; they, therefore, advised the Mashonas also to rise in rebellion, and to drive the white men out of their country into the sea. They also said that Logenbula had come to life again, and that if the Mashonas did not destroy the white men in their country, the whole of the Matabele nation would come down upon them and wipe them out. Accordingly, the Mashonas rose, murdered the outlying settlers, and threatened the towns. They also held the main road by which supplies came up from the sea *via* Beira.

As I told you before, Salisbury had sent a relief column to Buluwayo, and we had, therefore, to send them back hot-foot to the relief of their own people, and we sent up two other small columns to their assistance. But, meantime, they behaved very pluckily themselves in Victoria and Salisbury and elsewhere. Patrols were sent out to rescue outlying farmers and performed many heroic acts. One patrol of thirteen men, under Captain Nesbit, went out from Salisbury to rescue a small party at Mazoe, among whom were some women. They rigged up a wagonette, with corrugated iron, to make it bullet-proof, and started off. Half way out they met the enemy in force, but instead of turning back for reinforcements, they fought their way through, got the women and farmers, and brought them back, fighting their way as they went; and out of their little party they lost three killed and five wounded; also seven horses and most of the mules. This was only one out of several plucky patrols.

The enemy had cut the telegraph line between Salisbury and Buluwayo, but another line went a roundabout way by Victoria and Tuli, and through this we kept up communication with Salisbury.

This outbreak of the Mashonas put nearly 20,000 more enemy into the field against us, and the white armed men in Mashonaland only amounted to nearly 2,000. The General now called for Imperial troops from Cape Colony, and columns were immediately sent up. Five hundred Mounted Infantry and Engineers, under Colonel Alderson, with their own supplies and transport, were ordered up to Mashonaland by sea *via* Beira, and for Matabeleland, a squadron of the 7th Hussars, with the York and Lancaster Mounted Infantry, under Major Ridley, were sent up from Mafeking *via* Mangwe, to Buluwayo, and another column of 7th Hussars and West Riding Mounted Infantry, under Colonel Paget, were sent by Tuli and Victoria to Gwelo. But these all took seven weeks to get up to the scene of operation.

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Mr. Rhodes carried out the negotiations, but it took nearly five weeks of arguing with them before the actual terms of peace were agreed upon. The Matopo district being cleared, there still remained forces of the enemy, both in the north-east and east parts of Matabeleland, and the Imperial troops, having now arrived on the scene, were sent up to clear these districts. Colonel Paget, from Victoria, went into the Gwelo district, and I was put in command of the column which Major Ridley had brought up. This column was strengthened at Buluwayo with some of the local troops, colonials, Boers and Cape Boys, so I had a very mixed lot under me; but it was wonderful how well they pulled together. Our business was to clear out the people in the north-east, which was chiefly forest country; two or three impis were said to be there, one of them being Mqwati's impi, that is to say, a special regiment told off to defend the high priest of the Mlimo. (This is his stick I am pointing with.)

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the same effect, and we were able at once to move on from this spot to tackle the other rebels to the north of us.

The day after Uwini was shot, we moved on into the forest, to go for an impi reported on the Gwelo river ; but luckily we captured some women on our way, and these informed us that the impi was already on the move, getting away from a white army approaching from the eastward. This was evidently Colonel Paget's column coming up, so that our obvious course was at once to move north and cut off the line of retreat of this impi, which we eventually did. We carried out the clearance of the forest by dividing up the column into three strong parties, each having its own tract of country told off to it, and we hunted the people about until they were broken-up and glad enough to come in and surrender. But harassing them was harassing also to ourselves. Food was very scarce, as we could not take wagons into this country, and had to carry all we wanted on our horses, and water was sometimes altogether absent. The rivers on the map look very nice and blue ; but there they are mere beds of sand, in which you have to dig and scrape for water, and it is not particularly good when you get it. Our horses soon began to give out, and we had to do much of our work on foot, and then our boots gave out. Although living on half rations, we soon ran out of tinned meat, and the game being dead of rinderpest, we had at one time to kill horses for food. But as matters got worse, Tommy Atkins always got more cheerful, and our only regret was that we never succeeded in getting a good fight. Once some of the Mounted Infantry had a chance, and acted as cavalry, that is to say, they fixed bayonets and charged like Lancers.

Having cleared the forest, we came back against the impi, which lay between us and Buluwayo, but on our approach, they sent in and surrendered. When within forty miles of Buluwayo, I got a note from the General, which was evidently subsequent to some message which he had sent me, but which had never reached me. This note just mentioned something about "when you and Paget have finished Wedza, I want you to do this, that and the other.", From this sentence it was evident that he had sent some order previously that I was to co-operate with Paget against Wedza ; so on the strength of it, I at once started off to get to Wedza's, which was 100 miles distant in a south-easterly direction, and I sent runners to Buluwayo with messages to be telegraphed to Paget to that effect. Wedza's stronghold was a celebrated place being a large mountain, with half a dozen high peaks on it,

each of which was fortified and occupied by the enemy. Eventually Paget found it impossible to join me for attacking this place. I did not like to leave it, and yet was not strong enough to attack it ; so we played a game of bluff, surrounded it with small posts for two days and a night, and kept up a continuous fire from all sides at once, and lit up a chain of fires around it by night, so as to give the enemy the impression that we were a big force. This had the desired effect, and during the second day the enemy made a bolt for it. We cleared the place, destroyed all the kraals, and followed the enemy up with a patrol of sixty miles, after which Wedza and the other chiefs of this district surrendered themselves ; and we then joined Colonel Paget's column, which had cleared all the country round Gwelo. This, practically, finished the war in Matabeleland.

In the meantime the Imperial troops had come up through Beira into Mashonaland, but their difficulties in getting there were very great. They had fifty miles of river, with very few tugs and barges, and they met with various mishaps, such as sticking on mud banks, etc. Then they embarked their men and horses on the little railway that runs up from Fontes Villa, and that was pretty hard work, considering the thermometer stands at 115° , and it is a damp heat at that. Then one of the trains ran off the line, and the railway people got excited and sent off another train, which dashed into the débris, and there was another smash ; and when, eventually, they got off the railway, and through the mountains into Mashonaland, they found the enemy waiting for them in a mountain defile, well named " The Devil's Pass." But instead of going through, they worked round the flank, turned the enemy's position, and took his fortified town by assault. In this fight Captain Haynes, R.E., was killed. They then fought various other small tribes who threatened the road, and then establishing forts all along the road, ensured the safety of the supply route for Mashonaland. When they arrived at Salisbury, they found the people there practically at the end of their food-supply, and they were able at once to relieve them. Afterwards, as more supplies came up, Colonel Alderson's force was sent out in strong flying columns against the various chiefs in different directions, such as Mashingombi, Umtigeza, Makoni, and others, and they smashed them all up in turn ; but it was, all the same, unpleasant fighting among boulders and caves. The Mashonas are a most cowardly nation, and never fight in the open. They hide between the rocks, and

plaster up the crevices, leaving only a tiny loophole through which to fire when anyone offers a fair target ; and in attacking these places, you have not only to look out to your front and all round you, but also under your feet, for they are very apt to fire from below ; and it was in this way that so many of our troops were badly wounded in the feet and legs. Finally, by the 25th of November, the chiefs of Mashonaland had generally given in their surrender, and the whole rebellion was at an end. It was then the Imperial troops were withdrawn, just before the rains, and the unhealthy season came on. And we had now been able to get up sufficient supplies to stock the various towns ready for the rainy season.

The whole of our forces combined amounted to a little over 5,000, that is, 3,000 in Matabeleland and 2,200 in Mashonaland. This included 1,200 Imperial troops, composed of detachments of the 7th Hussars, the Special Service Mounted Infantry Corps, Infantry and Mounted Infantry of the West Riding and the York and Lancaster Regiments, some Royal Engineers and Artillery, Medical Staff, etc. The local forces included 4,200 English, Dutch, and Cape Boys, who were organized in local field forces for each town, also Plumer's Matabele Relief Force, Turner's Natal Troop, Cape Boy Corps, etc. Besides these, we were supposed have about 4,000 friendly natives, but they were not much good to us ; and then we had a large number of transport drivers and other employés, all of whom had to be fed.

Our casualties among the fighting force were as follows :— Killed in action or died of wounds, 70 ; died from other causes, 57 ; accidentally killed, 7 ; total, 134 deaths. Wounded in action, 158 ; accidentally wounded, 15 ; total wounded, 173. Of these casualties, 14 officers and 39 men belonged, to the Imperial troops. In addition to these, the number of persons murdered or missing amounted to 258. The proportion of killed to wounded was a large one, and was principally caused by the awful wounds inflicted by the enemy's missiles. These necessitated a good number of amputations, which, of course, could not be done so well in the field, especially as our Medical Staff arrangements were somewhat sketchy, owing to want of proper material. The doctors were good enough, but the ambulance and apparatus were all of the rudest description. A good number of those, who were killed or wounded by accidents, suffered from the inexperience of others in handling their guns, and several were blown up in an accidental explosion of the magazine at Buluwayo.

The country was now garrisoned by a newly-raised force of armed police, 1,200 strong. These were distributed about the country in twenty-seven different forts, which were generally placed in the best grain growing districts, and thus commanded the supplies of the people. And I think that now they will settle down to a quiet time; and as they learn the value of peace, they will turn into industrious and law-abiding subjects. They did not understand the white rule before; the whites were trying to rule them with a hand of iron inside a velvet glove. That is all very well, supposing the natives understand that there is a hand of iron inside the glove. These people thought it was only a velvet glove. They pulled it off for themselves and found that it was an iron hand inside, and I think it is better in the end that they should have done so. They now know our strength in South Africa, and will recognize our right and power to dominate and protect them.

PART II.

LESSONS OF THE CAMPAIGN.

SCOUTING.—The best lesson that I personally learnt was the art of scouting. I could spend a week telling you all about it, as it is, of course, the most interesting work that one could possibly be engaged in. However, I will now only sketch in a few words what struck me as the principal point about it. I hardly know of a fight in history of which the result was not in some way due to good or defective preliminary reconnaissance, and the important art of scouting is not to be learnt in a day, and its elements ought to be, and could be, practised by everybody in peace time. One can train one's self in peace by educating the mind in two essential particulars. That is how it struck me. I may be wrong; but I found it useful in my own case to have practised myself in the two following points:—One is the habit of noticing every little detail, and the other is practice in putting those details together and reasoning out their meaning; the art of spotting things in the first instance, and then of putting this and that together and drawing your conclusions from them. Now, if you go across country with a trained scout, his eyes will be everywhere; he will notice little tiny signs on the ground at his feet, or other signs in the far distance; he will notice details that you can hardly see yourself, and he will read them out in a moment and tell you what, as a whole, they mean; he reads them just as you read the page of a book. An uneducated man will ask you "How

do you know the book says that ? ” “ Well,” you reply, “ here it is. This letter and that letter make up a word, these words make sentences, and the sentences make sense, and that is how I gain the information from this page.” In the same way the scout sees such small signs as four broken twigs, or a bent blade of grass, which form the letters, and several of them, put together, form words and sentences sufficient to give him full information. I will give you an example of what I mean. I was out scouting with my native boy in the neighbourhood of the Matopos. Presently we noticed some grass-blades freshly trodden down. This led us to find some foot-prints on a patch of sand ; they were those of women or boys, because they were small ; they were on a long march, because they wore sandals ; they were pretty fresh, because the sharp edge of the foot-prints were still well defined, and they were heading towards the Matopos. Then my nigger, who was examining the ground a short distance away from the track, suddenly started, as Robinson Crusoe must have done when he came on Friday’s foot-mark. But in this case the boy had found, not a foot-mark, but a single leaf. But that leaf meant a good deal ; it belonged to a tree that did not grow in this neighbourhood, though we knew of such trees, ten or fifteen miles away. It was damp, and smelt of Kaffir beer. From these two signs, then, the foot-prints and the beery leaf, we were able to read a good deal. A party of women had passed this way, coming from a distance of ten miles back, going towards the Matopos, and carrying beer (for they carry beer in pots upon their heads, the mouth of the pot being stoppered with a bunch of leaves). They had passed this spot at about 4 o’clock that morning, because at that hour there had been a strong wind blowing, such as would carry the leaf some yards off their track, as we had found it. They would probably have taken another hour to reach the Matopos, and the men for whom they were bringing the refreshment would, in all probability, start work on it at once, while the beer was yet fresh. So that, if we now went on following this spoor up to the stronghold, we should probably find the men in too sleepy a state to take much notice of us, and we could do our reconnaissance with comparative safety. So you see there is a good deal of information to be picked up from merely noticing two small objects, such as crushed blades of grass and a single leaf, and then reasoning out their meaning.

And these two habits of mind are what every man can practise in peace time. Houdin, the conjuror, used to train

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his son to notice and remember things in a shop window to such an extent that, after taking one look, he could away and tell you every object that was shown in the window. This was developing the "prehensibility of mind," which is necessary for a scout. Then, for instances of "inductive reasoning," one cannot do better than read the *Memoirs of Sherlock Holmes*, and to practise the art on similar lines. A scout, to be of any use, must have absolute confidence in his abilities, and his abilities will be largely the outcome of practice in peace time.

Forts.—Another thing we learnt on this campaign was how to build forts suited to the local circumstances. These were not altogether in accordance with the book of *Field Fortification*. Everybody seems to have an idea that a fort must necessarily have a ditch round it, but a ditch in the rainy season, and for a long time after it, means stagnant, fever-breeding pools round your fort. So we did without ditches other than small surface drains, and a dug-out stable under one face of the fort so placed that we could fire over it. We also carried out the plan I had tried at Coomassi, namely, of having a "crow's nest" in the centre of each fort. An Engineer officer objected to it, but it was found to be very useful notwithstanding. Using an existing tree, we cut away its upper branches, erected a stout platform, on which a machine-gun was mounted, with a breast-work round it of sand-bags, or, as in one instance, of parts of a field oven; from this position one sentry sufficed for the protection of the fort. The men lived outside the fort, within a strong fence of thorn-bush. For some distance beyond this fence we allowed the grass to remain, because on its light yellow colour the black forms of any enemy showed up strongly, especially at night; but about 100 yards away from the fort, we burnt a tract of grass all round in order to prevent grass fires coming up to us. The fort was, as a rule, constructed to hold about forty men, and contained two huts—one for hospital and one for stores.

Laagers.—Sometimes we had to make standing laagers with our wagon, and round outside these we put entanglements of barbed wire, and paved the ground with broken bottles, and placed mines which could be fired from the laager by electricity. In one laager, indeed, at one of the mines, they had made an arrangement for receiving the enemy very warmly, with scalding water, in fact, played through hoses.

Use of dynamite.—Dynamite was freely used both for mines, for felling trees, improving fords, storming koppies, and

catching fish. For storming koppies, we used to load up old jam-pots with dynamite, and use them as hand grenades, throwing them into the caves to be attacked, either with percussion or short-time fuses. On one occasion the time fuse had to be very short; they threw in a grenade with an ordinary fuse, and some plucky man among the defenders sent it back among them, and it was very nearly a case of the engineer "hoist on his own petard." A second time the same thing happened, but the third time they put a very short fuse indeed, and the man inside was too late in his attempt to return it.

Columns Supply.—Then the management of flying columns, or, as they were usually called there, patrols, furnish very good lessons to the officers commanding them in every part of their duty, such as equipping, provisioning, doctoring, as well as guiding and manœuvring them. It was a great difficulty to find officers capable of doing this efficiently, mainly owing to want of previous training. Even when they had got their supplies, they were not well up in systematically issuing and keeping account of them, and, consequently, frequently found themselves in want of food or ammunition unexpectedly, and in positions where it was difficult to replenish them. The system of supply was at first very sketchy, and consisted merely in lumping together all that they could get, and then, when anybody wanted food, ammunition, or clothing, he would be told, "right; here you are; help yourself." They never knew what was in stock or how much had been issued. At one time we badly wanted some clothes for the men, but at the stores they said they had none. A week or two later, digging about under some sacks of flour, we came on 1,000 suits of uniform, or rather the remains of them, for the white-ants had got at them freely. This same want of system is responsible for the large amount of ammunition in the hands of the enemy. Rifles and ammunition were issued—I am talking now of long before the war—with a free hand to prospectors and others travelling alone in the country. These men were not always trustworthy, and were very apt to pay away both arms and ammunition in the purchase of information regarding gold-bearing reefs, and for cattle, etc.

When Colonel Bridge and his staff of A. S. C. and O. S. C. clerks came up, they soon introduced system into the place; and when the officers commanding flying columns got to work systematically also, an immense saving was effected, both of money and, what was then of more value than money, of stores

and ammunition. Happily, in the Service, we are trained to look after Government stores, and their proper issue; but on going on service, I think fellows are a little too apt to become careless in the matter, and to say, "Oh, all that will be written off as lost on active service;" whereas, if they have learnt in peace time a thoroughly good principle of accounting for their stores, they will, without difficulty, avoid much waste and confusion on service.

Night marches.—Then as to night marches. These are things that we sometimes practised in peace time, but I think not nearly enough. They are not things one undertakes on one's initiative at home, and yet on service they are of the greatest value, but depend for their success very much on practice and experience. In Matabeleland we moved more by night than by day. It was the only way we could tackle the niggers. I remember on a patrol down the Shangani, where we moved almost entirely by night, some native prisoners, whom we captured, asked to see our horses, and when they saw them, they wanted them to spread their wings, because they believed they were a kind of gigantic bat that flew with us by night. That successful night marching was a good deal the result of practice. We had practical proof of the Colonial Corps of Bulawayo being better at it than those that came up from the south to reinforce it, and who had had practically no previous experience, although I must say they soon got into it.

Well, those are all points which, in my opinion, should be well practised in peace time—that is, the scouting, the working of small independent columns, getting up tactics or fortifications at your fingers' ends, so as to be able to apply, or alter them, to suit local circumstances, the care of stores and accounts, and the practice of night marching.

Of course, it may be said, "Oh, it's all very well, but you will pick them up quickly enough on service." So you will in a short time; but it is just in those first few days that a man may get his best opportunities, or may fall into the most fatal of mistakes. So many poor fellows got shot up there at their first introduction to native fighting from sheer ignorance of the enemy's ways. They would say, "I don't see a nigger anywhere; it's no use getting flustered or taking cover." They never seem to believe that, although they did not see them, niggers were lying among the grass or rocks close to them, and they were slow to take the advice, "always to keep under cover or to keep moving." A native will very often

reserve his fire if you keep moving about, in the hopes that you will presently stand still and give him a fair target. Four occasions I was sent with a flag of truce to talk to the rebels. The first time I *stood* to talk, and the only reply I got was a bullet or two around me. Afterwards I always did my talking while walking about, and was listened to with much better attention.

Transport.—The transport was another big job with us. Observe what length of road our supplies had to come. The first one, from Cape Town to Matabeleland, went 900 miles by rail, and then 587 by road, and a sandy, waterless road at that. The transport of supplies by this road was carried out by mule wagons belonging to contractors. We used to pay them for every 100 lbs. brought up. The cost at first was £10, which was afterwards reduced to half that ; and in addition to this payment, we had to assist them a good deal in the matter of mules, forage, and drivers. Then, the second supply route, from Cape Town to Mashonaland, was, by sea, 1,700 miles ; then, from Beira, 50 miles by river, 100 miles by train, and over 200 by road, part of it mountainous district. This road portion we worked with our own wagons in stages ; the wagons and mules being supplied from the Cape, and the system worked very effectively. Then, in addition to the two supply routes, we had to find regimental transport for the numerous small columns acting against the enemy in all parts of the country. Altogether, we had about 5,000 mules and 3,700 donkeys thus employed. On the Salisbury-Umtali road, in the mountainous part of it, the rinderpest had not been so virulent as elsewhere, and we were luckily able to keep a certain amount of ox transport going ; and we had here 600 oxen, and from 3,000 to 4,000 carriers, on the worst part of the road.

Then we also worked under other difficulties, such as want of artificers and repairing material. When wagons broke down and harness gave out, we had to repair as best we could. We had some very good adjustable pack-saddles, but we were not able to make much use of them, because the horses were not strong enough to carry loads, and the mules were too wild by nature to make good pack animals without a great amount of previous training. The mules were good enough for wagon work, because you just yoked ten of them in, and they had to pull or die.

Stores.—The unexpectedness of the outbreak of war and the simultaneous destruction of the means of transport by

rinderpest greatly added to our difficulties, because there was no provision of a reserve of supplies in the country ; and we felt it so much in many little details, especially boots, and drugs for the sick and wounded. We were badly off for chloroform and bandages and such things. And when the supplies did begin to arrive, they came in such bad cases, which were much smashed up on the journey, and, consequently, there was great loss or damage to the contents. And the supplies we got were not all of the best quality ; much of the tinned meat had, previous to the war, been cast as unfit for issue, but was now brought on charge again to meet the demand. We brought home some samples of our coffee and sugar, and sent them to Mark-lane for report. They said of the sugar that it would be useful for farmers as manure. Many of the men used tea for tobacco.

Horses —Of our horses, we had 2,600, and those of the 7th Hussars were a splendid looking lot when they came up ; but when they had to do a great deal of hard work, on little or no food, and a very limited supply of water, they gave out altogether ; and when once they had given out, they did not seem able to revive, or to be of use for anything except to serve as beef. The Mounted Infantry were mounted on ponies of fourteen hands, and they were excellent, and stuck to their work as long as they could move. They were little better than skeletons, and died in numbers. We lost 39 per cent. of our horses through overwork, and probably a large number have since died from horse-sickness, for the season of that scourge is now on, and they generally reckon on losing something like 50 per cent.

Arms.—Well, then, as to arms. The Lee-Metford was on trial a great deal, because we were all armed, more or less, with Lee-Metfords. The Colonials had the sporting rifle, the 7th Hussars had the carbine, and the Mounted Infantry the rifle. They all made excellent shooting. The Imperial troops made a name for themselves as marksmen, which I don't think they could have done with any other rifle. The Boers, who were with us, expressed real admiration for the shooting of the troops, and in one or two cases, where they were fighting side by side, it seemed to become a kind of shooting match between the Boers and the Imperial troops, and I must say that our fellows invariably won.

People have said that the Lee-Metford bullet has not enough stopping power ; certainly, very often when a man was hit he showed very little sign of it at the moment if it did

not happen to hit him in a vital spot. But we heard from prisoners that those men who got away from a fight with little holes in them, as they expressed it, never live long after it ; the cold of the night seemed to kill them. With a very little alteration, however, the bullet seems to be quite as effective as that of the Martini-Henry.

Then we had a large number of Maxims with us, both the '450 and '303, but we preferred, as a rule, the '450 ; the other did not seem to have sufficient recoil action. Most of these Maxims were mounted on cavalry carriages, which also carried a tripod, and though they were put to very severe tests over bad ground, they proved thoroughly satisfactory. After one of the fights, a native came in and asked to see the doctor, who found he had nine wounds from one discharge of the Maxim, which had just shaved past him, and left him crimped all down one side as if somebody had been at him with an iron rake.

Then we had some 7-pounder screw guns, which were carried on mules, and did excellent work. Their portability enabled them to be brought into action from the summits of difficult koppies, and their accuracy had a great effect on the enemy. "Bye and bye" our niggers called them, because after firing them there is a pause, and "bye and bye" the shell arrives at its destination. These guns also proved themselves very useful at close quarters. Sometimes the enemy appeared to get accustomed to the Maxims, and to come on in spite of them, but they never could stand the mighty bang and discharge of case at 150 yards from the 7-pounder.

As regards swords, the 7th Hussars had only one chance with theirs. A small party of them met with a small party of the enemy, and scarcely allowed one to escape, doing the whole execution with the sword, the enemy being armed with assegais and battle-axes. The distribution of ammunition was a difficulty with us, because we had so many different kinds to deal with. For the artillery we had seven different kinds of ammunition, for twelve different patterns of gun, for amongst our ordnance we had several guns taken from the Portuguese in a previous war, among which was a quick-firing 1-pounder Hotchkiss, a most useful weapon. Then we had six different kinds of rifle ammunition for seven patterns of rifles ; for we had Winchesters and Colts, besides Lee-Metfords, Martinis, and others.

Medical Staff.—Our Medical Staff was arranged by getting all the local doctors to join, and they were assisted by

two officers sent by the Red Cross Society, and were later on joined by the officers of the Army Medical Staff. We had a civilian doctor as Principal Medical Officer ; but the army doctors pulled together with the Colonials, and worked under him without a hitch. Then we had a large number of medical students and practitioners, who formed a very useful Medical Staff Corps. And at the base hospitals a number of nuns acted as nursing sisters, and they regularly slaved their lives out for the sick and wounded ; they worked splendidly. For ambulances, we had to fit out as best we could the ordinary wagons or covered wagonettes, adding springs and mattresses to them.

Head gear.—I will now only very briefly allude to one or two remaining points. Someone, on seeing a photograph of me in my Matabeleland costume or kit, said, " You were wearing a hat ; why not a helmet ? " Well, I think that in that country a hat is the best thing you can wear, a broad-brimmed cow-boy hat. The helmet is a very useful thing for warding off a blow ; but I don't think it is good for anything out there. For one thing, it exposes the tip of your nose. This is a small thing, at least, with some people, but it is a very important one. There are things you suffer from in that country in the way of veldt sores, and these are very apt to come on places blistered by the sun ; consequently, a large number of men wearing helmets suffered from terrible sores on their noses and ears. Now, a hat protects the whole of the lower part of the head and neck from the sun ; moreover, it protects you in going through thorn-bush, you can sleep in it, and it does not get damaged from getting trodden on as a helmet does.

Washing.—Another principle to be observed on the veldt is, do not wash. Dr. Nansen did not wash at the North Pole, nor did we in Matabeleland. If you wash your face and hands too often, it seems to render the skin more liable to veldt sores than it otherwise would be ; and if you bathe the " altogether," as Trilby would call it, in rivers, you are very apt to get fever.

Shoes.—India-rubber soled shoes were a grand thing for working over the granite boulders among the Matopos ; and if we ever have to work again in such country, they might well be served out to the men, for in some cases they had to take off their boots in order to get a foothold on the slippery surface of the rock.

Koppie fighting.—A koppie is a pile of massive granite boulders. Near the top is built the village, and on the most

inaccessible rocks, to keep them safe from thieves, are the bins in which the people keep their corn. There is generally only one path up to the village, and that is barricaded with stockades, which are further defended by loopholes, or crevices, in the surrounding rocks. But in attacking one of these places, when you have knocked away the stockade with shells, and have clambered up to the village, you find that the enemy have disappeared underground, for the inside of the koppie is almost always honeycombed with a labyrinth of caves. Then you have to fire a few shots down these caves, and crawl down immediately after; and it was not unlike going down a drain-pipe or a chimney; and though a very few determined men could easily hold a stronghold, once they were tackled inside it, they generally gave in; but at best it was not pleasant work.

Varied characteristics of the troops.—I have said before we had a very varied lot of men to work with—Colonials, Cape Boys, Boers, and Imperial troops. Well, the Colonials are excellent men on the veldt, and they quite understand how to manage for themselves, and to act independently; but they do not understand letter-of-the-regulation discipline. Their fire discipline was not good; if they saw a nigger, every man, who could get a glimpse of him, had a shot at him. The Cape Boys were very much the same, excepting that even those who did not see the enemy opened fire also on nothing in particular; but they were very good men in the attack, especially under good white leaders, such as Major Robertson, their Commandant, who was coolness itself under fire; but they could not be relied on to work independently. Then the Boers were just good, honest farmers; they did not pretend to have any soldierly dash or go about them, and they did not consider it worth losing a white man over tackling a few niggers in a cave. If you asked them to attack a koppie, they would look on you as mad. With Tommy Atkins it was just the opposite; you showed him a koppie and he was at it at once, often not wisely, but too well, for many of them got hit at this game. Then their fire discipline, in addition to their good marksmanship, was a treat to see. The Boers and Colonials were particularly struck with it. It was only after they had seen the fire discipline of the British troops that they began to understand what I was driving at when endeavouring to infuse some of it into them. They could never understand why, when they saw a nigger, they could not shoot at him at once without waiting for orders; but

they grasped the idea when they saw a squad of Mounted Infantry watch one rebel after another come out, without attempting to fire till after a good clump of enemy had made their appearance, the word was suddenly given for a volley, which was delivered with deadly effect.

Discipline.—In dealing with mixed bodies of men, one realized something of what discipline really is. The Cape Boys and Boers did not seem to have any real idea of discipline; whereas the British-blooded Colonials, under their independent manner, and the Imperial troops, seemed to have a good ground-work of real discipline in them. Whether it is born in them, or whether they get it trained into them, I do not know; but it seemed to me to be what is, probably, very much the outcome of the games they learnt in their youth, *viz.*, the discipline of football, cricket, and that sort of thing; and this is the best kind of discipline. It is very different from the kind of veneer which you see in Continental armies. The sole idea of our people seems to be to "play the game." They carry out those two leading rules, or, at least, what used to be the leading rules, when I played at football. One was, a "keep in your place," and the other, "play the game." Keep in the place to which you have been appointed, not thinking of it as a stepping-stone to other places, nor fiddling about at other people's business. Keep in the place in which you are put, and play the game; back up on every occasion where you see a chance, in order that your side may win; don't play for your own glorification, or merely to win medals, stars, and such things, but wholly and entirely that your side may win the game.

A SCHEME FOR THE ORGANIZATION OF AMMUNITION COLUMNS.

BY CAPTAIN J. U. COATES, R.A.

The chances are that in the future the chief danger to our rule in India will come from a European enemy, and in this case the question of the supply of ammunition in the field will be of great importance. The following paper deals with the re-organization of the ammunition columns, for which a peace establishment is now maintained.

A field battery carries in its wagons and gun limbers 110 rounds per gun, or 660 per battery, an amount that may be expended in a little over two hours. The primary duty, then, of ammunition columns, so far as artillery is concerned, is to bring into the field within reach of the batteries engaged a fresh supply to replace the ammunition expended. A secondary duty is to make good casualties in horses, personnel, and material.

To perform these duties in an efficient way, the personnel should not only be trained in time of peace, but should consist of reliable fighting material organized in such a way as to develop soldierly qualities.

Ammunition columns in India are organized in units, each unit having six ammunition wagons. There being presumably as many units in the column as there are batteries to be supplied.

The composition of a three-unit ammunition column under present arrangements for the supply of the three batteries of a division is given in detail in Table B, of which the following is a summary :—

| | | | |
|--|------------|--|-------|
| British officers | 3 | Total horses and ponies (including 10 private) | 155 |
| British non-commissioned officers and gunners | 16 | Total carriages (including 18 ammunition wagons) | 21 |
| Native non-commissioned officers and drivers | 73 | Total 12-pr. rounds car- ried in a column | 1,332 |
| Followers (including 10 private) | 19 | | |
| Total personnel | 182 | | |

The equipment is maintained in peace time for the formation of twenty-two units, and the following table gives the method by which they are brought up to war strength :—

| No. of units. | Head-quarters in peace. | Where formed on mobilization. | Equipment where stored. | British non-commissioned officers and men where obtained. | Native establishment where obtained. | Horses where obtained. | |
|---------------|-------------------------|-------------------------------|-------------------------|---|---|------------------------|----------------------------|
| 3 | Rawal Pindi. | Campbell-pore. | With units | Service batteries at Bareilly and Jhansi. | Syces and drivers, with units, at Rawal Pindi, Campbell-pore, and Meean Meer; remainder to come from Bareilly and Jhansi. | With units. | |
| 3 | Ferozepore | Mooltan . | With units | Service batteries at Barrackpore and Dinapore. | Syces and drivers, with units, at Lahore, Ferozepore, and Mooltan; remainder to come from Barrackpore and Dinapore. | With units. | |
| 1 | ... | Ferozepore | Ferozepore Arsenal. | As may be ordered hereafter . . . | | | Purchased on mobilization. |
| 4 | ... | Allahabad | Allahabad Arsenal. | As may be ordered hereafter . . . | | | Purchased on mobilization. |
| 3 | ... | Mhow . | Mhow Arsenal. | The Bombay Presidency . . . | | | Purchased on mobilization. |
| 4 | ... | Mhow . | Bombay Arsenal. | The Bombay Presidency . . . | | | Purchased on mobilization. |
| 4 | ... | Quetta . | Quetta . | The Madras Presidency. | Batteries of the Hyderabad Artillery. | | |
| Total 22 | | | | | | | |

From the above table it will be seen that, apart from the batteries of the Hyderabad Artillery, more or less organized native establishment and horses are maintained for six units. The organization, however, of small bodies of men, with no hope of promotion, handed over from battery to battery, and with no officers of their own, is not such as to attract good men or develop any soldierly feeling; while even for mobilizing these six units, calls have to be made on service batteries hundreds of miles away for officers and men whom it may be impossible to replace.

Under present arrangements no small arm ammunition is carried in a column; but by a simple alteration in the pattern of artillery wagon now in use, which is given in detail further on, the same weight of ammunition could be carried in fewer wagons, without any increase in draught, so enabling two small arm ammunition wagons to be substituted for Royal Artillery wagons, in each unit admitting of the carriage of 192 boxes of small arm ammunition in each divisional ammunition

company, and so giving a small reserve of small arm ammunition behind the regimental reserves, none at present being available nearer than the ordnance field park which may be one or more marches in rear.

The scheme now put forward proposes the concentration of the six units now kept up, and without any increase in horses or number of carriages on peace establishment to re-organize them into a group of two companies, each company being composed of three units. The organization, however, being such that they could be readily expanded to a strength of four companies on mobilization, besides leaving behind a dépôt.

For the present, the formation of only two such groups is contemplated, the second, as is detailed further on, being formed from the Hyderabad Artillery. This, although far short of possible requirements, would be a great advance on present organization.

Each group of two companies would require two British officers as commanding officer and adjutant. No suggestion is made as to the source from which they should come, but if the companies are organized and armed as is here contemplated, the officers must have a knowledge of musketry.

With the exception of one Pathan per unit as interpreter in Pushtu, and, perhaps, some of the artificers, each group of two companies must consist of a distinct class, as otherwise difficulties would be experienced on service in regulating promotion and filling up casualties.

Each unit would be complete in itself and be commanded by a native officer.

On the peace establishment each company would be commanded by a Subadar, who would be responsible to his commanding officer for the equipment and for the correctness of the company equipment ledger and other necessary books, English figures being used, but headings being both in English and vernacular.

The conditions of service for the sepoy would be alternate years on the active list and in reserve; but native officers, non-commissioned officers, and artificers would be permanently embodied and eligible for leave and furlough as with other native troops.

The native infantry has been taken as the standard for pay and as a guide to the proportion of commissioned and non-commissioned officers.

The sepoys of the ammunition companies would be armed with rifle and sword bayonet, the rifles of those driving being

carried on the wagons. The training would include musketry as in a native regiment in addition to riding and driving for every sepoy, including artificers, for which the establishment of horses would be ample (excluding non-commissioned officers and artificers, about 1 horse per sepoy).

Musketry would take place at the beginning and end of the year's service to avoid the necessity of reservists being called out for musketry with other corps.

The addition of a few mules for instructional purposes to each unit, without increase of establishment, would enable an ammunition company to be organized, when required, for mountain warfare, the horses being handed over to those remaining behind.

Tables C and D give in detail the peace and war establishments for a proposed ammunition company.

As a second company is formed for field service from each company on peace establishment by calling up the sepoys in reserve (the horses being provided as under present arrangements by purchase or transfer), the mobilization of each peace company entails the following promotions :—

| | | | | |
|--------------------------|----|---|---|---|
| 1 Jemadar | . | . | . | To Subadar. |
| 4 Havildars | . | : | . | „ Jemadar (on probation) (some assistance might here be required from other corps). |
| 3 Lance-Havildars | . | . | . | „ Havildar. |
| 6 Naiks | . | . | . | „ Lance-Havildar. |
| 6 Lance-Naiks | . | . | . | } „ Naiks. |
| 2 Sepoys | . | . | . | |
| 6 Sepoys | . | . | . | „ Lance-Naik. |
| 1 Nalband (if qualified) | . | . | . | „ Salutri. |
| 4 Acting Nalbands | . | . | . | „ Nalband. |
| 1 Acting Trumpeter | .. | . | . | „ Trumpeter. |
| 1 Sepoy (if qualified) | . | . | . | „ Lohar. |
| 1 Acting Saddler | . | . | . | „ Saddler. |
| 1 Sepoy (if available) | . | . | . | „ Clerk. |

On completion of the mobilization of a group, which has found four companies for service, there will remain over a surplus of two native officers, four havildars, and four naiks and sixty-eight sepoys. These, under a British officer, will form the depôt at which recruits would be trained to replace casualties on service, and which would form a strong nucleus from which other units would be organized, if required.

For this mobilization, two British officers from the reserve, or elsewhere, would be required to command companies and one for the depôt. Under present arrangements

mobilizing a similar number of units would require twelve officers.

The excess of native officers and non-commissioned officers, requiring absorption after return to the peace establishment; would be one of the minor expenses of the war.

To form the proposed group of two ammunition companies, it would be necessary, in the first place, to obtain the native officers and most of the non-commissioned officers from volunteers from the Native Army, preferably from the cavalry. A large proportion of native drivers, now in the units, are not of a class worth training as sepoys. These and any who did not accept the new conditions of service could be transferred as occasion offered. Given a good staff to commence with, the ammunition companies would rapidly become efficient, and the conditions of service would doubtless be popular with many men, who do not care to be permanently away from their homes and land.

For housing the companies in peace time, barrack-rooms, holding twenty to twenty-five men, might be used as in the native infantry, the harness being hung up at one end. The verandahs could be so arranged as to afford shelter for the horses in wet weather, or in the heat of the day during the summer as is done in the Bengal Cavalry. As the sepoys would serve alternate years in reserve, no married quarters are necessary, except for a proportion of non-commissioned officers and artificers.

At Ferozepore the cost of building Bengal Cavalry lines by private contract for one section of five rooms for ten sowars is Rs. 260, or Rs. 26 per sowar.

The cost of housing sepoys in barrack-rooms is considerably cheaper than this, and verandahs will only be required to accommodate three horses for every four sepoys.

Assuming the cost per sepoy to be two-thirds the cost per sowar, accommodation for 306 non-commissioned officers and sepoys will cost Rs. 5,304.

Taking the Bengal Cavalry estimate, standings for 266 horses will cost Rs. 1,011.

Six native officers' quarters and houses for twenty-four followers will bring the cost of the lines, if built by private contract, to about Rs. 6,800.

Taking two-thirds the estimate for a Bengal Cavalry regiment, the following buildings put up by the Military Works Department would come to Rs. 7,500, but in several cases

would cost far less if built by private contract and maintained regimentally :—

| | |
|-------------------------|----------------------------|
| Guard room. | Bells of arms. |
| Quarter-master's store. | Armourer's shop. |
| Horse infirmary. | Wells and drinking trough. |

This gives a total of Rs. 14,300 for building the lines.

This sum is less than the estimate for building stables for various units now standing in the open.

The estimate for stabling fifty-eight unit horses at Ferozepore being Rs. 7,400.

Comparing the proposed ammunition company on war strength with the present three unit artillery ammunition column (Tables D and B), it will be seen that there is a saving of thirty-five in personnel and three horses, no forge being included, on the supposition that cold shoeing will be practised on service. If a forge is required the company must be reduced by one wagon. The ammunition then carried would still be twenty-four rounds more than under present arrangements.

This saving in numbers is accompanied by a great increase in real efficiency, as, excluding the artificers who would also be available on emergency, twenty-seven naiks and sepoy are available for driving to replace casualties ; whereas, under present arrangements, there are only three native non-commissioned officers available in addition to drivers, with a pair of horses.

One man for two horses is taken as sufficient on service for stables. The balance of twenty-seven will give a margin for grooming native officer's and havildars' horses, casualties, orderlies, guard, care of carriages, etc.

The company, being trained and armed with rifle and bayonet, would be independent of escort on the march ; and, if attacked by the enemy's cavalry, could find from eighty to ninety rifles in defence by closing up, and followers standing to the horses, besides on an occasion, like the investment of Sherpur or Kandahar, it would take its share in the defence, instead of being a useless encumbrance. The main argument, however, for the company being composed of armed sepoy in place of the present drivers is that otherwise good men will not enlist, and it is hopeless to try and obtain officers and non-commissioned officers from native regiments on first formation, if they do not feel that they are coming to command soldiers.

The proposed organization would obviate the necessity for drawing on the personnel of service batteries for the

formation and maintenance of ammunition columns. It would, on the contrary, to some extent, act as a feeder to batteries on service, on the principle that British drivers may replace casualties among the gunners, and the places of British wagon-drivers be taken by sepoy temporarily attached from the ammunition company.

The scheme does not propose any increase in the establishment of horses, on the ground that the supply of horses is mainly a question of money; and that, even if some batteries as at present have to give up horses to ammunition columns going on service, providing their personnel is untouched, they will rapidly become fit for service once remounts of a suitable age are provided by purchase.

An advertisement that Government would spend a crore of rupees would bring thousands of horses to India in a few weeks, but no money can replace at a moment's notice disciplined men and efficient non-commissioned officers.

Comparing the tentage and transport required (Tables E, F, G, H), it will be seen that the proposed scheme gives a small saving.

Comparing the cost of personnel at war strength the scheme shows a saving of Rs. 16,709 (Tables B and D) for each company.

Comparing the cost of personnel on peace footing, the annual increase of cost for maintaining two ammunition companies, which find the personnel for twelve units on service and a dépôt, over the cost of the present six units, is Rs. 23,764 (Tables A and C), exclusive of the pay of two British officers.

The second group would be formed out of the Hyderabad Artillery, which it is now intended to break up on mobilization.

The cost of the personnel of the Hyderabad Artillery is, roughly, Rs. 1,35,000. The cost of the proposed group of two companies is Rs. 67,808, the saving in this case being Rs. 67,000.

The total financial result of organizing the four companies in two groups, taking the cost of four British officers at Rs. 12,000, would be an annual saving of about Rs. 10,000, against which must be placed the first cost of conversion.

If desired, no extra cost would be incurred by the Hyderabad companies retaining guns, as at present, for show purposes during peace time.

From the foregoing comparisons it will be seen that the organization in a really efficient way of the personnel of two

H

groups of ammunition companies carrying infantry as well as artillery ammunition reserves, finding for service twenty-four units and leaving behind two strong depôts from which other units may be formed, can be effected with not only no extra cost, but with an actual saving to Government; while in the case of mobilisation on a large scale, it would save many batteries, whose services might be urgently required, from partial destruction.*

The question of matériel is of great importance, as, where a large sum of money (at present about Rs. 85,000 for six units) is annually expended on the maintenance of personnel and horses, it is an obvious extravagance to use a wagon which does not carry the greatest practical load.

Now, the present horse and field battery wagon, empty, weighs over 21 cwt.; and its load of seventy-four rounds of ammunition 10½ cwt., or, in other words, the wagon empty, weighs twice as much as the ammunition it carries.

This great weight, in proportion to load, is mainly due to its being considered necessary to have every part of the battery equipment interchangeable. For instance, to stand the shock of discharge, the gun requires a heavy wheel. Consequently, every wheel in the battery must be heavy, although it may be far stronger than necessary for its own particular work.

Shafts, too, must be interchangeable and strong enough to stand an upset when going into action. Each pair weighs about 100 lbs.

For similar reasons, every part of an ammunition wagon is very heavy.

Another reason for the small amount of ammunition carried is that, in addition to ammunition, a wagon has to carry several heavy gunners and their kits as well as ammunition.

However necessary the interchangeability of all parts may be in a service battery, its advantage is far outweighed in an

* *Note.*—Under present arrangements the mobilization of thirty units required by two army corps, with a cavalry division, makes the following demands for personnel on service batteries. (Equipment for twenty-two units only is kept up, but would doubtless be improvised for others).—

- (1) Thirty officers, or as many as there are in six batteries.
- (2) One hundred and sixty British non-commissioned officers, artificers, and gunners, or in numbers the whole British complement of a battery.
- (3) The native ranks for twenty units (not kept up or obtainable from the Hyderabad Artillery) nearly 500 drivers. These are only obtainable by collecting the eight or ten native drivers with each service battery, the few in reserve and by promoting syces to driver.
- (4) A large number of syces, lascars, and other followers, whose loss to service batteries would not appreciably affect their efficiency, but the full number of whom would be obtained with difficulty.

ammunition column, by the loss of carrying power, which it must be remembered is the sole reason for which an ammunition column exists.

Besides which, as an ammunition column will seldom have to gallop over rough ground like horse artillery, the wagons could well afford to be built much lighter; and as they would generally be doing slow work, there seems to be no reason why the draught should, in their case, be less than in field battery gun teams, which, with five gunners, comes to 42 cwt.*

Taking this into consideration, a wagon, built for the sole purpose of carrying ammunition, and at most two dismounted sepoy when trotting, could doubtless be built to carry considerably more than double the amount of ammunition which it now does.

Still a great deal can be done with our present equipment, without increasing the draught beyond that of a field battery wagon.

The replacement of the old 9-pr. wheels now in use with units, which themselves are not strong enough for 12-pr. gun wheels by wheel B-122, weight $1\frac{1}{2}$ cwt., or some similar wheel would, compared with the field battery wheel, C-42, weight 2 cwt., 13 lbs., be a saving of $2\frac{1}{2}$ cwt. in the ammunition column wagon, without counting the saving in weight with the spare wheels.

The replacement of the limber boxes, which, in battery wagons, weigh nearly 5 cwt., by one fixed box in the limber, and one in the body, would decrease weight while giving more space for ammunition.

In a field battery over five† dismounted men and kits are carried on each wagon, while in the proposed ammunition company there is an average of under two sepoy. Here is an advantage of 4 or 5 cwt. in favor of the ammunition column wagon.

Hence it will be seen that, without increasing the draught beyond that of a battery wagon, the useful load of a wagon could be increased by 7 cwt. At any rate, there would be no

| | Cwt. | lbs. |
|------------------------------------|--------|-------------|
| * Gun and carriage, without wheels | ... 14 | 20 |
| Limber and boxes, without wheels | ... 6 | 69 |
| Four, wheels, C-42 | ... 8 | 53 |
| Thirty-six rounds, of ammunition | ... 5 | 15 |
| Five gunners and four kits | ... 7 | 56 |
| | | gun limber. |
| Total | ... 41 | 102 |

† In a field battery there are eighty-five dismounted non-commissioned officers and gunners, of which thirty are on guns and gun limbers. This leaves fifty-five divided among ten carriages.

difficulty in raising the number of rounds carried from 72 to 110, which represents an increase of useful load of $5\frac{1}{2}$ cwt. This has been taken as the basis of calculation in this scheme, although about 140 rounds could be carried without the draught exceeding that of a 12-pr. gun.*

Thus, thirteen artillery wagons in the proposed company carry 1,430 rounds compared, with 1,296 rounds in the present eighteen wagons; and the eighteen wagons, with bullock draught taken into the field by the Ordnance Department, would, if similarly converted, carry 1,980 rounds in place of 1,296, or else the number of wagons could be reduced by a third without loss of carrying power.

The pattern of wheel, B-122, proposed is a second class wheel fitting the present axles, and interchangeable on emergency with battery wagon wheels. This wheel is quite strong enough for the work, and is in use with the small arm ammunition cart at home, with a load on each wheel of about the same as what falls on battery wagon wheels. A similar wheel, C-38, is or was used with the Royal Artillery ammunition and store wagon. This wagon, packed, weighs 47 cwt., or considerably more than an ammunition wagon.

Taking the draught of the Royal Artillery wagon as the standard, small arm ammunition wagons would carry about 32 boxes of ammunition, and this has been taken as the basis of calculation, although a horse in the small arm ammunition cart at home is expected to draw half as much again as he would do here.

Six such wagons would carry a reserve of 211,200 rounds of 303 ammunition.

So far, the supply of both infantry and artillery ammunition has been considered; but, if the scheme was restricted to the supply of the Royal Artillery alone, two units would carry exactly the same amount of ammunition as is now carried by three, and in a far more efficient manner, there being a large reduction of establishment on service; and in the case of the mobilization of two army corps, a saving of nearly 500 horses.

In this case each peace company would have two, instead of three, units, so reducing the annual cost of a company in horses and personnel by Rs. 23,000.

Apart from any saving in horses, the scheme so reduced would result in an annual saving to Government of Rs. 55,200 compared with the present cost of maintaining the personnel.

* If 140 rounds were carried in a wagon, instead of 110, each unit could be reduced by one wagon. The annual saving from this reduction would be nearly Rs. 30,000, with out loss of carrying power.

A

Detail and estimate of cost of the personnel of a three-unit ammunition column under present arrangements.

PEACE ESTABLISHMENT.

| | | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|------------------------------------|-----|-----------|-----------|-------------|--------|--|--------|
| | | | | | | Rs. | Rs. |
| Sergeant-Majors | ... | 1 | 1 | 1 | 3 | 3,948 | |
| Office allowance at Rs. 50 a unit. | ... | ... | ... | ... | ... | 1,800 | |
| | | | | | | | 5,748 |
| Naiks | ... | 3 | 1 | 1 | 5 | 960 | |
| Drivers | ... | 27 | 19 | 18 | 64 | 9,984 | |
| | | | | | | | 10,944 |
| | | 30 | 20 | 19 | 69 | | |
| Jemadar syces | ... | 1 | 1 | 1 | 3 | 267 | |
| Syces | ... | 33 | 21 | 20 | 74 | 5,698 | |
| | | | | | | | 5,965 |
| | | 34 | 22 | 21 | 77 | | |
| Horses | ... | 59 | 37 | 37 | 133 | Total cost of personnel. Twelve horses are required on mobilization. | |
| Carriages. | | | | | | | |
| Ammunition wagon | ... | 6 | 6 | 6 | 18 | | |
| Forge | ... | 1 | ... | ... | 1 | | |
| Gun carriage | ... | 1 | ... | ... | 1 | | |
| Store cart | ... | 1 | ... | ... | 1 | | |
| | | 9 | 6 | 6 | 21 | | |

Note.—Estimate does not include good-conduct pay, or cost of reserve drivers, whose numbers are not known.

Note.—For calculation of cost of the various ranks, see Table J.

B

Detail and estimate of cost of the personnel of a three-unit ammunition column under present arrangement.

WAR ESTABLISHMENT.

| | | | | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|--|-----|-----|-----|-----------|-----------|-------------|--------|--------------|--------|
| | | | | | | | | Rs. | Rs. |
| <i>Officers.</i> | | | | | | | | | |
| Captain | ... | ... | ... | 1 | ... | ... | 1 | 6,043 | |
| Lieutenant | ... | ... | ... | ... | 1 | 1 | 2 | 8,216 | |
| | | | | 1 | 1 | 1 | 3 | | 14,259 |
| Command and office allowance. | | | | ... | ... | ... | ... | | 960 |
| <i>Non-commissioned officers and men.</i> | | | | | | | | | |
| Sergeant-Major | ... | ... | ... | 1 | ... | ... | 1 | 1,316 | |
| Quartermaster Sergeant | | | | 1 | ... | ... | 1 | 1,316 | |
| Farrier Sergeant | ... | ... | ... | 1 | ... | ... | 1 | 1,150 | |
| Shoeing-smith | ... | ... | ... | 2 | ... | ... | 2 | 1,386 | |
| Bombardier (?), Collar-maker. | | | | 1 | ... | ... | 1 | 762 | |
| Trumpeter | ... | ... | ... | 1 | ... | ... | 1 | 693 | |
| Non-commissioned officers, Bombardier (?). | | | | 1 | 1 | 1 | 3 | 2,286 | |
| Gunners | ... | ... | ... | 2 | 2 | 2 | 6 | 2,868 | |
| | | | | 10 | 3 | 3 | 16 | | 11,777 |
| Havildar | ... | ... | ... | 1 | ... | ... | 1 | 240 | |
| Naik | ... | ... | ... | 1 | 1 | 1 | 3 | 576 | |
| Drivers | ... | ... | ... | 29 | 20 | 20 | 69 | 10,764 | |
| | | | | 31 | 21 | 21 | 73 | | 11,580 |

WAR ESTABLISHMENT—*contd.*

| | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|-------------------------------|-----------|-----------|-------------|--------|-------------------------------|--------|
| <i>Followers.</i> | | | | | Rs. | Rs. |
| Jemadar syces at Rs. 7 | ... | ... | ... | 2 | 177 | |
| Store lascars at „ 6 | ... | ... | ... | 6 | 540 | |
| Tent „ at „ 5-8 | ... | ... | ... | 6 | 441 | |
| Moochie { 1 at „ 10 | ... | ... | ... | 3 | 297 | |
| { 2 at „ 7 | ... | ... | ... | | | |
| Native smith at „ 9 | ... | ... | ... | 3 | 337 | |
| Head carpenter at „ 14 | ... | ... | ... | 1 | 168 | |
| Carpenter at „ 10 | ... | ... | ... | 2 | 240 | |
| Fireman at „ 10 | ... | ... | ... | 1 | 120 | |
| Fileman at „ 7 | ... | ... | ... | 1 | 88 | |
| Syces at „ 6 | ... | ... | ... | 35 | 2,677 | |
| Pakhali at „ 9 | ... | ... | ... | 1 | 112 | |
| Bhistie at „ 5 | ... | ... | ... | 1 | 64 | |
| Sweeper at „ 4 | ... | ... | ... | 2 | 105 | |
| Chowdry at „ 10 | ... | ... | ... | 1 | 120 | |
| Mutsuddy at „ 5 | ... | ... | ... | 1 | 64 | |
| Cook | ... | ... | ... | 1 | | |
| | | | | 67 | | 5,550 |
| Hospital Assistant, 2nd grade | ... | ... | ... | 1 | 540 | |
| Ward servant at Rs. 7 | ... | ... | ... | 1 | 88 | |
| Bearers at „ 6 | ... | ... | ... | 6 | 459 | |
| | | | | 8 | | 1,087 |
| | | | | | Total cost of per- sonnel. | 45,213 |

carried on the wagons. The training would include musketry as in a native regiment in addition to riding and driving for every sepoy, including artificers, for which the establishment of horses would be ample (excluding non-commissioned officers and artificers, about 1 horse per sepoy).

Musketry would take place at the beginning and end of the year's service to avoid the necessity of reservists being called out for musketry with other corps.

The addition of a few mules for instructional purposes to each unit, without increase of establishment, would enable an ammunition company to be organized, when required, for mountain warfare, the horses being handed over to those remaining behind.

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| | |
|------------------------------------|--|
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| 4 Havildars | " Jemadar (on probation) (some assistance might here be required from other corps) |
| 3 Lance-Havildars | " Havildar. |
| 6 Naiks | " Lance-Havildar. |
| 6 Lance-Naiks | } " Naiks. |
| 2 Sepoys | |
| 6 Sepoys | " Lance-Naik. |
| 1 Nalband (if qualified) | " Salutri. |
| 4 Acting Nalbands | " Nalband. |
| 1 Acting Trumpeter | " Trumpeter. |
| 1 Sepoy (if qualified) | " Lohar. |
| 1 Acting Saddler | " Saddler. |
| 1 Sepoy (if available) | " Clerk. |

On completion of the mobilization of a group, which has found four companies, all remain over a surplus of two companies and four Naiks and six Sepoys. These would form the nucleus of a second company to be trained for field service. The surplus would form the nucleus from which a third company could be organized. The surplus from the re-organization would be used to command companies under present arrangements.

mobilizing a similar number of units would require twelve officers.

The excess of native officers and non-commissioned officers, requiring absorption after return to the peace establishment; would be one of the minor expenses of the war.

To form the proposed group of two ammunition companies, it would be necessary, in the first place, to obtain the native officers and most of the non-commissioned officers from volunteers from the Native Army, preferably from the cavalry. A large proportion of native drivers, now in the units, are not of a class worth training as sepoys. These and any who did not accept the new conditions of service could be transferred as occasion offered. Given a good staff to commence with, the ammunition companies would rapidly become efficient, and the conditions of service would doubtless be popular with many men, who do not care to be permanently away from their homes and land.

For housing the companies in peace time, barrack-rooms, holding twenty to twenty-five men, might be used as in the native infantry, the harness being hung up at one end. The verandahs could be so arranged as to afford shelter for the horses in wet weather, or in the heat of the day during the summer as is done in the Bengal Cavalry. As the sepoys would serve alternate years in reserve, no married quarters are necessary, except for a proportion of non-commissioned officers and artificers.

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| | |
|-------------------------|----------------------------|
| Guard room. | Bells of arms. |
| Quarter-master's store. | Armourer's shop. |
| Horse infirmary. | Wells and drinking trough. |

This gives a total of Rs. 14,300 for building the lines.

This sum is less than the estimate for building stables for various units now standing in the open.

The estimate for stabling fifty-eight unit horses at Ferozepore being Rs. 7,400.

Comparing the proposed ammunition company on war strength with the present three unit artillery ammunition column (Tables D and B), it will be seen that there is a saving of thirty-five in personnel and three horses, no forge being included, on the supposition that cold shoeing will be practised on service. If a forge is required the company must be reduced by one wagon. The ammunition then carried would still be twenty-four rounds more than under present arrangements.

This saving in numbers is accompanied by a great increase in real efficiency, as, excluding the artificers who would also be available on emergency, twenty-seven naiks and sepoys are available for driving to replace casualties; whereas, under present arrangements, there are only three native non-commissioned officers available in addition to drivers, with a pair of horses.

One man for two horses is taken as sufficient on service for stables. The balance of twenty-seven will give a margin for grooming native officer's and havildars' horses, casualties, orderlies, guard, care of carriages, etc.

The company, being trained and armed with rifle and bayonet, would be independent of escort on the march; and, if attacked by the enemy's cavalry, could find from eighty to ninety rifles in defence by closing up, and followers standing to the horses, besides on an occasion, like the investment of Sherpur or Kandahar, it would take its share in the defence, instead of being a useless encumbrance. The main argument, however, for the company being composed of armed sepoys in place of the present drivers is that otherwise good men will not enlist, and it is hopeless to try and obtain officers and non-commissioned officers from native regiments on first formation, if they do not feel that they are coming to command soldiers.

The proposed organization would obviate the necessity for drawing on the personnel of service batteries for the

formation and maintenance of ammunition columns. It would, on the contrary, to some extent, act as a feeder to batteries on service, on the principle that British drivers may replace casualties among the gunners, and the places of British wagon-drivers be taken by sepoys temporarily attached from the ammunition company.

The scheme does not propose any increase in the establishment of horses, on the ground that the supply of horses is mainly a question of money; and that, even if some batteries as at present have to give up horses to ammunition columns going on service, providing their personnel is untouched, they will rapidly become fit for service once remounts of a suitable age are provided by purchase.

An advertisement that Government would spend a crore of rupees would bring thousands of horses to India in a few weeks, but no money can replace at a moment's notice disciplined men and efficient non-commissioned officers.

Comparing the tentage and transport required (Tables E, F, G, H), it will be seen that the proposed scheme gives a small saving.

Comparing the cost of personnel at war strength the scheme shows a saving of Rs. 15,709 (Tables B and D) for each company.

Comparing the cost of personnel on peace footing, the annual increase of cost for maintaining two ammunition companies, which find the personnel for twelve units on service and a depot, over the cost of the present six units, is Rs. 23,764 (Tables A and C), exclusive of the pay of two British officers.

The second group would be formed out of the Hyderabad Artillery, which it is now intended to break up on mobilization.

The cost of the personnel of the Hyderabad Artillery is, roughly, Rs. 1,35,000. The cost of the proposed group of two companies is Rs. 67,808, the saving in this case being Rs. 67,000.

The total financial result of organizing the four companies in two groups, taking the cost of four British officers at Rs. 12,000, would be an annual saving of about Rs. 10,000, against which must be placed the first cost of conversion.

If desired, no extra cost would be incurred by the Hyderabad companies retaining guns, as at present, for show purposes during peace time.

From the foregoing comparisons it will be seen that the organization in a really efficient way of the personnel of two

H

The equipment is maintained in peace time for the formation of twenty-two units, and the following table gives the method by which they are brought up to war strength:—

| No. of units. | Head-quarters in peace. | Where formed on mobilization. | Equipment where stored. | British reinforcements of officers and men where obtained. | Native establishment where obtained. | Horses where obtained. |
|---------------|-------------------------|-------------------------------|-------------------------|--|---|-------------------------|
| 3 | Rawal Pindi. | Campbell-pore. | With units. | Service batteries at Bareilly and Jhansi. | Syces and drivers, with units, at Rawal Pindi, Campbell-pore, and Meerut; remainder to come from Bareilly and Jhansi. | With units. |
| 3 | Ferozepore. | Mooltan. | With units. | Service batteries at Barrackpore and Dinapore. | Syces and drivers, with units, at Lahore, Ferozepore, and Meerut; remainder to come from Barrackpore and Dinapore. | With units. |
| 1 | ... | Ferozepore. | Ferozepore Arsenal. | As may be ordered hereafter. | | Purchased on 15.5.1914. |
| 4 | ... | Alahabad. | Alahabad Arsenal. | As may be ordered hereafter. | | Purchased on 15.5.1914. |
| 3 | ... | Mhow. | Mhow Arsenal. | The Bombay Presidency. | | Purchased on 15.5.1914. |
| 4 | ... | Mhow. | Mhow Arsenal. | The Bombay Presidency. | | Purchased on 15.5.1914. |
| 4 | ... | Quetta. | Quetta Arsenal. | The Madras Presidency. | Batteries of the Hyderabad Artillery. | Purchased on 15.5.1914. |
| Total 13 | | | | | | |

From the above table it will be seen that, apart from the batteries of the Hyderabad Artillery, more or less organized native establishment and horses are maintained for six units. The organization, however, of small bodies of men, with no hope of promotion, handed over from battery to battery, and with no officers of their own, is not such as to attract good men or develop any soldierly feeling; while even for mobilizing these six units, calls have to be made on service batteries hundreds of miles away for officers and men whom it may be impossible to replace.

Under present arrangements no small arm ammunition is carried in a column; but by a simple alteration in the pattern of artillery wagon now in use, which is given in detail further on, the same weight of ammunition could be carried in fewer wagons, without any increase in draught, so enabling two small arm ammunition wagons to be substituted for Royal Artillery wagons, in each unit admitting of the carriage of 102 boxes of small arm ammunition in each divisional ammunition

company, and so giving a small reserve of small arm ammunition behind the regimental reserves, none at present being available nearer than the ordnance field park which may be one or more marches in rear.

The scheme now put forward proposes the concentration of the six units now kept up, and without any increase in horses or number of carriages on peace establishment to re-organize them into a group of two companies, each company being composed of three units. The organization, however, being such that they could be readily expanded to a strength of four companies on mobilization, besides leaving behind a dépôt.

For the present, the formation of only two such groups is contemplated, the second, as is detailed further on, being formed from the Hyderabad Artillery. This, although far short of possible requirements, would be a great advance on present organization.

Each group of two companies would require two British officers as commanding officer and adjutant. No suggestion is made as to the source from which they should come, but if the companies are organized and armed as is here contemplated, the officers must have a knowledge of musketry.

With the exception of one Pathan per unit as interpreter in Pushtu, and, perhaps, some of the artificers, each group of two companies must consist of a distinct class, as otherwise difficulties would be experienced on service in regulating promotion and filling up casualties.

Each unit would be complete in itself and be commanded by a native officer.

On the peace establishment each company would be commanded by a Subadar, who would be responsible to his commanding officer for the equipment and for the correctness of the company equipment ledger and other necessary books, English figures being used, but headings being both in English and vernacular.

The conditions of service for the sepoy would be alternate years on the active list and in reserve; but native officers, non-commissioned officers, and artificers would be permanently embodied and eligible for leave and furlough as with other native troops.

The native infantry has been taken as the standard for pay and as a guide to the proportion of commissioned and non-commissioned officers.

The sepoys of the ammunition companies would be armed with rifle and sword bayonet, the rifles of those driving being

carried on the wagons. The training would include musketry as in a native regiment in addition to riding and driving for every sepoy, including artificers, for which the establishment of horses would be ample (excluding non-commissioned officers and artificers, about 1 horse per sepoy).

Musketry would take place at the beginning and end of the year's service to avoid the necessity of reservists being called out for musketry with other corps.

The addition of a few mules for instructional purposes to each unit, without increase of establishment, would enable an ammunition company to be organized, when required, for mountain warfare, the horses being handed over to those remaining behind.

Tables C and D give in detail the peace and war establishments for a proposed ammunition company.

As a second company is formed for field service from each company on peace establishment by calling up the sepoys in reserve (the horses being provided as under present arrangements by purchase or transfer), the mobilization of each peace company entails the following promotions :—

| | |
|------------------------------------|--|
| 1 Jemadar | To Sabadar. |
| 4 Havildars | " Jemadar (on probation) (some assistance might here be required from other corps) |
| 3 Lance-Havildars | " Havildar. |
| 6 Naiks | " Lance-Havildar. |
| 6 Lance-Naiks | } " Naiks. |
| 2 Sepoys | |
| 6 Sepoys | " Lance-Naik. |
| 1 Nalband (if qualified) | " Sautri. |
| 4 Acting Nalbands | " Nalband. |
| 1 Acting Trumpeter | " Trumpeter. |
| 1 Sepoy (if qualified) | " Lohar. |
| 1 Acting Saddler | " Saddler. |
| 1 Sepoy (if available) | " Clerk. |

On completion of the mobilization of a group, which has found four companies for service, there will remain over a surplus of two native officers, four Havildars, and four naiks and sixty-eight sepoys. These, under a British officer, will form the depot at which recruits would be trained to replace casualties on service, and which would form a strong nucleus from which other units would be organized, if required.

For this mobilization, two British officers from the reserve, or elsewhere would be required to command companies and one for the depot. Under present arrangements

mobilizing a similar number of units would require twelve officers.

The excess of native officers and non-commissioned officers, requiring absorption after return to the peace establishment, would be one of the minor expenses of the war.

To form the proposed group of two ammunition companies, it would be necessary, in the first place, to obtain the native officers and most of the non-commissioned officers from volunteers from the Native Army, preferably from the cavalry. A large proportion of native drivers, now in the units, are not of a class worth training as sepoys. These and any who did not accept the new conditions of service could be transferred as occasion offered. Given a good staff to commence with, the ammunition companies would rapidly become efficient, and the conditions of service would doubtless be popular with many men, who do not care to be permanently away from their homes and land.

For housing the companies in peace time, barrack-rooms, holding twenty to twenty-five men, might be used as in the native infantry, the harness being hung up at one end. The verandahs could be so arranged as to afford shelter for the horses in wet weather, or in the heat of the day during the summer as is done in the Bengal Cavalry. As the sepoys would serve alternate years in reserve, no married quarters are necessary, except for a proportion of non-commissioned officers and artificers.

At Ferozepore the cost of building Bengal Cavalry lines by private contract for one section of five rooms for ten sowars is Rs. 260, or Rs. 26 per sowar.

The cost of housing sepoys in barrack-rooms is considerably cheaper than this, and verandahs will only be required to accommodate three horses for every four sepoys.

Assuming the cost per sepoy to be two-thirds the cost per sowar, accommodation for 306 non-commissioned officers and sepoys will cost Rs. 5,304.

Taking the Bengal Cavalry estimate, standings for 266 horses will cost Rs. 1,011.

Six native officers' quarters and houses for twenty-four followers will bring the cost of the lines, if built by private contract, to about Rs. 6,800.

Taking two-thirds the estimate for a Bengal Cavalry regiment, the following buildings put up by the Military Works Department would come to Rs. 7,500, but in several cases

would cost far less if built by private contract and maintained regimentally :—

| | |
|-------------------------|----------------------------|
| Guard room. | Bells of arms. |
| Quarter-master's store. | Armourer's shop. |
| Horse infirmary. | Wells and drinking trough. |

This gives a total of Rs. 14,300 for building the lines.

This sum is less than the estimate for building stables for various units now standing in the open.

The estimate for stabling fifty-eight unit horses at Ferozepore being Rs. 7,400.

Comparing the proposed ammunition company on war strength with the present three unit artillery ammunition column (Tables D and B), it will be seen that there is a saving of thirty-five in personnel and three horses, no forge being included, on the supposition that cold shoeing will be practised on service. If a forge is required the company must be reduced by one wagon. The ammunition then carried would still be twenty-four rounds more than under present arrangements.

This saving in numbers is accompanied by a great increase in real efficiency, as, excluding the artificers who would also be available on emergency, twenty-seven naiks and sepoys are available for driving to replace casualties; whereas, under present arrangements, there are only three native non-commissioned officers available in addition to drivers, with a pair of horses.

One man for two horses is taken as sufficient on service for stables. The balance of twenty-seven will give a margin for grooming native officer's and havildars' horses, casualties, orderlies, guard, care of carriages, etc.

The company, being trained and armed with rifle and bayonet, would be independent of escort on the march; and, if attacked by the enemy's cavalry, could fire from eighty to ninety rifles in defence by closing up, and followers standing to the horses, besides on an occasion, like the investment of Sherpur or Kandahar, it would take its share in the defence, instead of being a useless encumbrance. The main argument, however, for the company being composed of armed sepoys in place of the present drivers is that otherwise good men will not enlist, and it is hopeless to try and obtain officers and non-commissioned officers from native regiments on first formation, if they do not feel that they are coming to command soldiers.

The proposed organization would obviate the necessity for drawing on the personnel of service batteries for the

formation and maintenance of ammunition columns. It would, on the contrary, to some extent, act as a feeder to batteries on service, on the principle that British drivers may replace casualties among the gunners, and the places of British wagon-drivers be taken by sepoys temporarily attached from the ammunition company.

The scheme does not propose any increase in the establishment of horses, on the ground that the supply of horses is mainly a question of money; and that, even if some batteries as at present have to give up horses to ammunition columns going on service, providing their personnel is untouched, they will rapidly become fit for service once remounts of a suitable age are provided by purchase.

An advertisement that Government would spend a crore of rupees would bring thousands of horses to India in a few weeks, but no money can replace at a moment's notice disciplined men and efficient non-commissioned officers.

Comparing the tentage and transport required (Tables E, F, G, H), it will be seen that the proposed scheme gives a small saving.

Comparing the cost of personnel at war strength the scheme shows a saving of Rs. 16,709 (Tables B and D) for each company.

Comparing the cost of personnel on peace footing, the annual increase of cost for maintaining two ammunition companies, which find the personnel for twelve units on service and a dépôt, over the cost of the present six units, is Rs. 23,764 (Tables A and C), exclusive of the pay of two British officers.

The second group would be formed out of the Hyderabad Artillery, which it is now intended to break up on mobilization.

The cost of the personnel of the Hyderabad Artillery is, roughly, Rs. 1,35,000. The cost of the proposed group of two companies is Rs. 67,808, the saving in this case being Rs. 67,000.

The total financial result of organizing the four companies in two groups, taking the cost of four British officers at Rs. 12,000, would be an annual saving of about Rs. 10,000, against which must be placed the first cost of conversion.

If desired, no extra cost would be incurred by the Hyderabad companies retaining guns, as at present, for show purposes during peace time.

From the foregoing comparisons it will be seen that the organization in a really efficient way of the personnel of two

H

groups of ammunition companies carrying infantry as well as artillery ammunition reserves, finding for service twenty-four units and leaving behind two strong depôts from which other units may be formed, can be effected with not only no extra cost, but with an actual saving to Government; while in the case of mobilisation on a large scale, it would save many batteries, whose services might be urgently required, from partial destruction.*

The question of matériel is of great importance, as, where a large sum of money (at present about Rs. 85,000 for six units) is annually expended on the maintenance of personnel and horses, it is an obvious extravagance to use a wagon which does not carry the greatest practical load.

Now, the present horse and field battery wagon, empty, weighs over 21 cwt.; and its load of seventy-four rounds of ammunition 10½ cwt., or, in other words, the wagon empty, weighs twice as much as the ammunition it carries.

This great weight, in proportion to load, is mainly due to its being considered necessary to have every part of the battery equipment interchangeable. For instance, to stand the shock of G's horse, the gun requires a heavy wheel. Consequently, every wheel in the battery must be heavy, although it may be far stronger than necessary for its own particular work.

Shafts, too, must be fit to take a full and strong enough to stand an upset when going into action. Each pair weighs about 100 lbs.

For similar reasons, every part of an ammunition wagon is very heavy.

Another reason for the small amount of ammunition carried is that, in addition to ammunition a wagon has to carry several heavy gunners and their kits as well as ammunition.

However necessary the interchangeability of all parts may be in a service battery, its advantage is far outweighed in an

* *Note*—Under present arrangements, the total number of the units required by twenty companies will be 240. The number of units which would be required on service batteries would be 120. The number of units which would be required on service batteries would be 120. The number of units which would be required on service batteries would be 120.

- (1) The number of units which would be required on service batteries would be 120.
- (2) The number of units which would be required on service batteries would be 120.
- (3) The number of units which would be required on service batteries would be 120.
- (4) The number of units which would be required on service batteries would be 120.

ammunition column, by the loss of carrying power, which it must be remembered is the sole reason for which an ammunition column exists.

Besides which, as an ammunition column will seldom have to gallop over rough ground like horse artillery, the wagons could well afford to be built much lighter; and as they would generally be doing slow work, there seems to be no reason why the draught should, in their case, be less than in field battery gun teams, which, with five gunners, comes to 42 cwt.*

Taking this into consideration, a wagon, built for the sole purpose of carrying ammunition, and at most two dismounted sepoy when trotting, could doubtless be built to carry considerably more than double the amount of ammunition which it now does.

Still a great deal can be done with our present equipment, without increasing the draught beyond that of a field battery wagon.

The replacement of the old 9 pr. wheels now in use with units, which themselves are not strong enough for 12-pr. gun wheels by wheel B-122, weight $1\frac{1}{2}$ cwt., or some similar wheel would, compared with the field battery wheel, C-42, weight 2 cwt., 13 lbs., be a saving of $2\frac{1}{2}$ cwt. in the ammunition column wagon, without counting the saving in weight with the spare wheels.

The replacement of the limber boxes, which, in battery wagons, weigh nearly 5 cwt., by one fixed box in the limber, and one in the body, would decrease weight while giving more space for ammunition.

In a field battery over five† dismounted men and kits are carried on each wagon, while in the proposed ammunition company there is an average of under two sepoy. Here is an advantage of 4 or 5 cwt. in favor of the ammunition column wagon.

Hence it will be seen that, without increasing the draught beyond that of a battery wagon, the useful load of a wagon could be increased by 7 cwt. At any rate, there would be no

| | Cwt. | lbs. |
|--|------|------|
| • Gun and carriage, without wheels ... | 14 | 20 |
| Limber and boxes, without wheels ... | 6 | 69 |
| Four, wheels, C-42 ... | 8 | 53 |
| Thirty-six rounds, of ammunition ... | 5 | 15 |
| Five gunners and four kits ... | 7 | 56 |
| Total ... | 41 | 102 |

† In a field battery there are eighty-five dismounted non-commissioned officers and gunners, of which thirty are on guns and gun limbers. This leaves fifty-five divided among ten carriages.

difficulty in raising the number of rounds carried from 72 to 110, which represents an increase of useful load of $5\frac{1}{2}$ cwt. This has been taken as the basis of calculation in this scheme, although about 140 rounds could be carried without the draught exceeding that of a 12-pr. gun.*

Thus, thirteen artillery wagons in the proposed company carry 1,430 rounds compared, with 1,296 rounds in the present eighteen wagons; and the eighteen wagons, with bullock draught taken into the field by the Ordnance Department, would, if similarly converted, carry 1,980 rounds in place of 1,296, or else the number of wagons could be reduced by a third without loss of carrying power.

The pattern of wheel, B-122, proposed is a second class wheel fitting the present axles, and interchangeable on emergency with battery wagon wheels. This wheel is quite strong enough for the work, and is in use with the small arm ammunition cart at home, with a load on each wheel of about the same as what falls on battery wagon wheels. A similar wheel, C-38, is or was used with the Royal Artillery ammunition and store wagon. This wagon, packed, weighs 47 cwt., or considerably more than an ammunition wagon.

Taking the draught of the Royal Artillery wagon as the standard, small arm ammunition wagons would carry about 32 boxes of ammunition, and this has been taken as the basis of calculation, although a horse in the small arm ammunition cart at home is expected to draw half as much again as he would do here.

Six such wagons would carry a reserve of 211,200 rounds of 1303 ammunition.

So far, the supply of both infantry and artillery ammunition has been considered, but, if the scheme was restricted to the supply of the Royal Artillery alone, two units would carry exactly the same amount of ammunition as is now carried by three, and in a far more efficient manner, there being a large reduction of establishment on service; and in the case of the mobilization of two army corps, a saving of nearly 500 horses.

In this case each peace company would have two, instead of three, units, so reducing the annual cost of a company in horses and personnel by Rs. 25,000.

Apart from any saving in horses, the scheme so reduced would result in an annual saving to Government of Rs. 55,200 compared with the present cost of maintaining the personnel.

* If 140 rounds were carried, the useful load on each unit could be reduced by one wagon. The annual saving from this reduction would be nearly Rs. 30,000, with no loss of carrying power.

A

Detail and estimate of cost of the personnel of a three-unit ammunition column under present arrangements.

PEACE ESTABLISHMENT.

| | | | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|------------------------------------|-----|-----|-----------|-----------|-------------|--------|--|--------|
| | | | | | | | Rs. | Rs. |
| Sergeant-Majors | ... | ... | 1 | 1 | 1 | 3 | 3,948 | |
| Office allowance at Rs. 50 a unit. | ... | ... | ... | ... | ... | ... | 1,800 | |
| | | | | | | | | 5,748 |
| Naiks | ... | ... | 3 | 1 | 1 | 5 | 960 | |
| Drivers | ... | ... | 27 | 19 | 18 | 64 | 9,984 | |
| | | | | | | | | 10,944 |
| | | | 30 | 20 | 19 | 69 | | |
| Jemadar syces | ... | ... | 1 | 1 | 1 | 3 | 267 | |
| Syces | ... | ... | 33 | 21 | 20 | 74 | 5,698 | |
| | | | | | | | | 5,965 |
| | | | 34 | 22 | 21 | 77 | | |
| Horses | ... | ... | 59 | 37 | 37 | 133 | Total cost of personnel. 22,022 Twelve horses are required on mobilization. | |
| <i>Carriages.</i> | | | | | | | | |
| Ammunition wagon | ... | ... | 6 | 6 | 6 | 18 | | |
| Forge | ... | ... | 1 | ... | ... | 1 | | |
| Gun carriage | ... | ... | 1 | ... | ... | 1 | | |
| Store cart | ... | ... | 1 | ... | ... | 1 | | |
| | | | 9 | 6 | 6 | 21 | | |

Note.— Estimate does not include good-conduct pay, or cost of reserve drivers, whose numbers are not known.

Note.— For calculation of cost of the various ranks, see Table J.

by increasing the number of rounds carried from 72 to 112. The present carts and horse have a load of 5½ cwt. This has been taken as the basis of calculation in this scheme, and the 112 rounds will be carried without the draught exceeding that of a 12-pc. gun.*

Thus, thirteen artillery wagons in the proposed company carry 1,456 rounds compared with 1,296 rounds in the present company wagons; and the eighteen wagons, with bullock carts, authorized by the Ordnance Department, will, if the company is reduced, carry 1,920 rounds in place of 1,296. The present number of wagons could be reduced by a third without loss of carrying power.

The pattern of wheel B-122, proposed is a second class wheel for the present axes, and interchangeable on emergency with battery wagon wheels. This wheel is quite strong enough for the work and is in use with the small arm ammunition cart and the wheel on each wheel of about the same size as the battery wagon wheels. A similar wheel, C-30, is now used with the Royal Artillery ammunition and store wagon. This wagon, packed, weighs 47 cwt., or considerably more than the ammunition wagon.

The reduced number of the Royal Artillery wagon as the small arm ammunition wagon would carry about 32 boxes of ammunition. It has been taken as the basis of calculation in this scheme that the small arm ammunition cart at home is expected to draw half as much again as he would do here.

Six such wagons would carry a reserve of 211,200 rounds of 3.3 ammunition.

So far, the supply of both light and heavy artillery ammunition has been considered, but of this scheme has restricted to the supply of the Royal Artillery alone; two units would carry exactly the same amount of ammunition as is now carried by three, and in a far more efficient manner, involving a large reduction of expenditure on horses, and in the case of the mobilization of two army corps, a saving of nearly 500 horses.

In this case each battery company would have two, instead of three, units, so reducing the annual cost of a company in horses and personnel by Rs. 23,000.

Apart from any saving on horses, the scheme so reduced would result in an annual saving to Government of Rs. 55,200 compared with the present cost of maintaining the personnel.

* If the proposed wheels were used on the present axes, the draught could be reduced by one wagon. The annual saving from this reduction would be nearly Rs. 30,000, with out loss of carrying power.

A

Detail and estimate of cost of the personnel of a three-unit ammunition column under present arrangements.

PEACE ESTABLISHMENT.

| | | | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|------------------------------------|-----|-----|-----------|-----------|-------------|--------|--|--------|
| | | | | | | | Rs. | Rs. |
| Sergeant-Majors | ... | ... | 1 | 1 | 1 | 3 | 3,948 | |
| Office allowance at Rs. 50 a unit. | ... | ... | ... | ... | ... | ... | 1,800 | |
| | | | | | | | | 5,748 |
| Naiks | ... | ... | 3 | 1 | 1 | 5 | 960 | |
| Drivers | ... | ... | 27 | 19 | 18 | 64 | 9,984 | |
| | | | | | | | | 10,944 |
| | | | 30 | 20 | 19 | 69 | | |
| Jemadar syces | ... | ... | 1 | 1 | 1 | 3 | 267 | |
| Syces | ... | ... | 33 | 21 | 20 | 74 | 5,698 | |
| | | | | | | | | 5,965 |
| | | | 34 | 22 | 21 | 77 | | |
| Horses | ... | ... | 59 | 37 | 37 | 133 | Total cost of per-sonnel. Twelve horses are required on mobilization. | |
| <i>Carriages.</i> | | | | | | | | |
| Ammunition wagon | ... | ... | 6 | 6 | 6 | 18 | | |
| Forge | ... | ... | 1 | ... | ... | 1 | | |
| Gun carriage | ... | ... | 1 | ... | ... | 1 | | |
| Store cart | ... | ... | 1 | ... | ... | 1 | | |
| | | | 9 | 6 | 6 | 21 | | |

Note.— Estimate does not include good-conduct pay, or cost of reserve drivers, whose numbers are not known.

Note.— For calculation of cost of the various ranks, see Table J.

B

Detail and estimate of cost of the personnel of a three-unit ammunition column under present arrangement.

WAR ESTABLISHMENT.

| | | | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|--|-----|-----|-----------|-----------|-------------|--------|--------------|--------|
| | | | | | | | Rs. | Rs. |
| <i>Officers.</i> | | | | | | | | |
| Captain | ... | ... | 1 | ... | ... | 1 | 6,043 | |
| Lieutenant | ... | ... | ... | 1 | 1 | 2 | 8,216 | |
| | | | 1 | 1 | 1 | 3 | | 14,259 |
| Command and office allowance. | | | ... | ... | ... | ... | | 960 |
| <i>Non-commissioned officers and men.</i> | | | | | | | | |
| Sergeant-Major | ... | ... | 1 | ... | ... | 1 | 1,316 | |
| Quartermaster Sergeant | | | 1 | ... | ... | 1 | 1,316 | |
| Farmier Sergeant | ... | ... | 1 | ... | ... | 1 | 1,150 | |
| Shoeing-smith | ... | ... | 2 | ... | ... | 2 | 1,356 | |
| Bombardier (?), Collar-maker. | | | 1 | ... | ... | 1 | 702 | |
| Trumpeter | ... | ... | 1 | ... | ... | 1 | 673 | |
| Non-commissioned officers, Bombardier (?). | | | 1 | 1 | 1 | 3 | 2,256 | |
| Gunners | ... | ... | 2 | 2 | 2 | 6 | 2,568 | |
| | | | 10 | 3 | 3 | 16 | | 11,777 |
| Havildar | ... | ... | 1 | ... | ... | 1 | 240 | |
| Naiik | ... | ... | 1 | 1 | 1 | 3 | 576 | |
| Drivers | ... | ... | 20 | 20 | 20 | 60 | 10,764 | |
| | | | 31 | 21 | 21 | 73 | | 11,550 |

WAR ESTABLISHMENT—*contd.*

| | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|-------------------------------|-----------|-----------|-------------|--------|--------------------------|--------|
| | | | | | Rs. | Rs. |
| <i>Followers.</i> | | | | | | |
| Jemadar syces at Rs. 7 | ... | ... | ... | 2 | 177 | |
| Store lascars at „ 6 | ... | ... | ... | 6 | 540 | |
| Tent „ at „ 5-8 | ... | ... | ... | 6 | 441 | |
| Moochie { 1 at „ 10 | ... | ... | ... | 3 | 297 | |
| { 2 at „ 7 | ... | ... | ... | | | |
| Native smith at „ 9 | ... | ... | ... | 3 | 337 | |
| Head carpenter at „ 14 | ... | ... | ... | 1 | 168 | |
| Carpenter at „ 10 | ... | ... | ... | 2 | 240 | |
| Fireman at „ 10 | ... | ... | ... | 1 | 120 | |
| Fileman at „ 7 | ... | ... | ... | 1 | 88 | |
| Syces at „ 6 | ... | ... | ... | 35 | 2,677 | |
| Pakhali at „ 9 | ... | ... | ... | 1 | 112 | |
| Bhistie at „ 5 | ... | ... | ... | 1 | 64 | |
| Sweeper at „ 4 | ... | ... | ... | 2 | 105 | |
| Chowdry at „ 10 | ... | ... | ... | 1 | 120 | |
| Mutsuddy at „ 5 | ... | ... | ... | 1 | 64 | |
| Cook | ... | ... | ... | 1 | | |
| | | | | 67 | | 5,550 |
| Hospital Assistant, 2nd grade | ... | ... | ... | 1 | 540 | |
| Ward servant at Rs. 7 | ... | ... | ... | 1 | 88 | |
| Bearers at „ 6 | ... | ... | ... | 6 | 459 | |
| | | | | 8 | | 1,087 |
| | | | | | Total cost of personnel. | 45,213 |

WAR ESTABLISHMENT—concl'd.

| | One. unit. | Two. unit. | Three. unit. | Total. | Annual cost. |
|---|---------------|---------------|-----------------|--------|------------------------|
| | | | | | Rs. Rs. |
| <i>Private followers.</i> | | | | | |
| Officers' general servant ... | ... | ... | ... | 1 | |
| „ personal servants ... | ... | ... | ... | 3 | |
| „ syces ... | ... | ... | ... | 6 | |
| „ grass-cutters ... | ... | ... | ... | 3 | |
| Hospital Assistant's personal servant ... | ... | ... | ... | 1 | |
| „ „ pony attendant ... | ... | ... | ... | 1 | |
| | | | | 15 | |
| <i>Horses.</i> | | | | | |
| Private riding ... | 5 | 1 | 1 | 7 | <i>Summary.</i> |
| „ driving ... | 58 | 40 | 40 | 138 | Total of personnel 182 |
| | 63 | 41 | 41 | 145 | „ horses ... 155 |
| | | | | | „ carriages ... 21 |
| Horses, private ... | 2 | 2 | 2 | 6 | Rounds of 12-pr. 1,332 |
| Ponies ... | 2 | 1 | 1 | 4 | ammunition. |
| | 4 | 3 | 3 | 10 | |
| <i>Carriages.</i> | | | | | |
| Forge ... | 1 | ... | ... | 1 | Rounds of 12-pr. ammu- |
| Store wagon ... | 1 | ... | ... | 1 | nition carried— |
| Gun carriage ... | 1 | ... | ... | 1 | 36 |
| Ammunition wagon ... | 6 | 6 | 6 | 18 | 1,296 |
| | 9 | 6 | 6 | 21 | |

C

Detail and estimate of cost of the personnel for proposed ammunition company.

PEACE ESTABLISHMENT.

(Becomes two companies on mobilization.)

| | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost: | |
|---|-----------|-----------|-------------|--------|--------------|--------|
| <i>Native officers.</i> | | | | | Rs. | Rs. |
| Subadar | 1 | ... | ... | 1 | 1,125 | |
| <i>Non-commissioned officers and sepoy.</i> | | | | | | |
| Jemadars | ... | 1 | 1 | 2 | 1,176 | |
| Havildars (including Pay-Havildar, Color-Havildar, and Quartermaster-Havildar). | 3 | 3 | 3 | 9 | 2,160 | |
| Naiks (including three Lance-Havildars). | 3 | 3 | 3 | 9 | 1,944 | |
| Lance-Naiks | 2 | 2 | 2 | 6 | 2,340 | |
| Trumpeter | 1 | ... | ... | 1 | | |
| Salutrie | 1 | ... | ... | 1 | | |
| Saddler | ... | 1 | ... | 1 | | |
| Clerk | ... | 1 | ... | 1 | | |
| Carpenter... .. | ... | ... | 1 | 1 | | |
| Lohar | ... | ... | 1 | 1 | 18,720 | |
| Nalbunds... .. | 1 | 1 | 1 | 3 | | |
| | 40 | 40 | 40 | 120 | 18,720 | |
| Sepoys (including acting artificers, store man, native officers' batmen, etc.). | 52 | 52 | 52 | 156 | | 27,465 |
| Sepoys in reserve ... | 40 | 40 | 40 | 120 | 4,320 | |
| | | | | | | 4,320 |

PEACE ESTABLISHMENT—*contd.*

| | | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|--------------------|-----|-----------|-----------|-------------|--------|--------------|------------------------|
| <i>Followers.</i> | | | | | | Rs. | Rs. |
| Langri ... | ... | 1 | 1 | 1 | 3 | 195 | |
| Bhistie ... | ... | 1 | 1 | 1 | 3 | 195 | |
| Sweeper ... | ... | 1 | 1 | 1 | 3 | 159 | |
| Chowdry ... | ... | 1 | ... | ... | 1 | 120 | |
| Weighman ... | ... | ... | 1 | ... | 1 | 65 | } with 1 company only. |
| Bullock-driver ... | ... | ... | ... | 1 | 1 | 65 | |
| | | 4 | 4 | 4 | 12 | | 799 |

* Half estimate allowances for group of two companies ... 1,320

Horses.

| | | | | | | |
|-----------------------------|-----|-----|-----|-----|---|--------|
| Native officer's charger... | 1 | 1 | 1 | 3 | Total cost of personnel, one company. | 33,904 |
| Trumpeter ... | 1 | ... | ... | 1 | | |
| Non-commissioned officers. | 4 | 4 | 4 | 12 | | |
| Wagon teams ... | 36 | 36 | 36 | 108 | 15 horses are required on mobilization. | |
| Spare ... | 3 | 3 | 3 | 9 | | |
| | 45 | 44 | 44 | 133 | | |
| Bullocks ... | ... | ... | ... | 2 | | |
| <i>Carriages.</i> | | | | | | |
| Store wagon ... | ... | ... | 1 | 1 | } Unhorsed. | |
| Spare gun carriage ... | ... | 1 | ... | 1 | | |
| R. A. ammunition wagon | 1 | ... | ... | 1 | } Horsed. | |
| R. A. ammunition wagon | 4 | 4 | 4 | 12 | | |
| S. A. A. wagon ... | 2 | 2 | 2 | 6 | | |
| | 7 | 7 | 7 | 21 | | |

| | |
|---|-------|
| * Allowances necessary for a group of two ammunition companies— | Rs. |
| Office allowance, monthly | 30 |
| Repairs, arms (about) | 40 |
| 2 Color-Havildars ... | 10 |
| 2 Quarter-master Havildars | 10 |
| 2 Pay-Havildars ... | 10 |
| 2 Rough riders ... | 10 |
| 2 Salutries ... | 12 |
| 2 Lohars ... | 24 |
| 2 Saddlers ... | 18 |
| 2 Carpenters ... | 18 |
| 2 Nalbands ... | 12 |
| 2 Trumpeters ... | 6 |
| 1 Regimental Moonshi | 20 |
| Total, monthly | 320 |
| Total, yearly | 3,840 |

The Lohar or black-smith would, in time of peace, have the contract for supply of shoes and, if a passed armourer, would carry out repairs to arms. He would not be required in every company for service.

The Moonshi is a necessity, as otherwise non-commissioned officers would not be found fit for promotion.

For calculation cost of various ranks, see Table J.

D

Detail and estimate of cost of the personnel for proposed ammunition company.

WAR ESTABLISHMENT.

| — | One-unit | Two-unit. | Three-unit. | Total. | Annual cost. | |
|---|----------|-----------|-------------|--------|--------------|--------|
| | | | | | Rs. | Rs. |
| British officer, if a reserve officer, with pay of Lieutenant, R.A. | ... | ... | ... | 1 | 4,108 | |
| <i>Native officers, non-commissioned officers, and sepoy.</i> | | | | | | 4,108 |
| Subadar ... | 1 | ... | ... | 1 | 1,128 | |
| Jemadar ... | ... | 1 | 1 | 2 | 1,176 | |
| Havildars (including Color-Havildar, Quartermaster-Havildar, and Pay-Havildar). | 1 | 1 | 1 | 3 | 720 | |
| Naiks (including three Lance-Havildars). | 2 | 2 | 2 | 6 | 1,296 | |
| Trumpeter ... | 1 | ... | ... | 1 | 1,404 | |
| Salutrie ... | 1 | ... | ... | 1 | | |
| Saddler ... | ... | 1 | ... | 1 | | |
| Clerk ... | ... | 1 | ... | 1 | | |
| Carpenter ... | ... | ... | 1 | 1 | | |
| Lohar ... | ... | ... | 1 | 1 | | |
| Nalbund ... | 1 | 1 | 1 | 3 | 14,504 | |
| Sepoys, with pair of horses | 23 | 23 | 23 | 69 | | |
| Sepoys, spare, including three Lance-Naiks, Native officers' batmen, care of carriage, etc. | 8 | 8 | 8 | 24 | | |
| | 38 | 38 | 38 | 114 | | 20,228 |

WAR ESTABLISHMENT—*contd.*

| | | | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|---------------------------------------|-----|-----|-----------|-----------|-------------|--------|--------------------------|--------|
| | | | | | | | Rs. | Rs. |
| <i>Followers.</i> | | | | | | | | |
| Langri | ... | ... | 1 | 1 | 1 | 3 | 195 | |
| Bhistie | ... | ... | 1 | 1 | 1 | 3 | 195 | |
| Sweeper | ... | ... | 1 | 1 | 1 | 3 | 159 | |
| Syce* | ... | ... | 1 | 1 | 1 | 3 | 231 | |
| Chowdry | ... | ... | 1 | ... | ... | 1 | 120 | |
| Weighman | ... | ... | ... | 1 | ... | 1 | 65 | |
| Smith | ... | ... | ... | ... | 1 | 1 | 113 | |
| Moochi | ... | ... | 1 | 1 | 1 | 3 | 339 | |
| | | | 6 | 6 | 6 | 18 | | 1,417 |
| Hospital Assistant, 2nd grade | ... | ... | | | 1 | 1 | 540 | |
| Ward servant | ... | ... | | | 1 | 1 | 89 | |
| Doolie-bearers | ... | ... | | | 6 | 6 | 462 | |
| | | | | | | 8 | | 1,091 |
| Allowances (about) | ... | ... | | | ... | ... | | 1,660 |
| <i>Private followers.</i> | | | | | | | | |
| British officer's private servant | ... | ... | | | 1 | 1 | Total cost of personnel. | 28,504 |
| " " syces | ... | ... | | | 2 | 2 | | |
| " " grass-cutter | ... | ... | | | 1 | 1 | | |
| Hospital Assistant's personal servant | ... | ... | | | 1 | 1 | | |
| " " pony attendant | ... | ... | | | 1 | 1 | | |
| | | | | | | 6 | | |

* Syces only included in list of followers for leaving in charge of sick horses on service to save the necessity of leaving sepoy.

For calculation cost of various ranks, see Table J.

WAR ESTABLISHMENT—*concl'd.*

| | One-unit. | Two-unit. | Three-unit. | Total. | Annual cost. | |
|--------------------------------|-----------|-----------|-------------|--------|---|---------|
| <i>Horses.</i> | | | | | Rs. | Rs. |
| | | | | | <i>Summary.</i> | |
| Native officer's charger... | 1 | 1 | 1 | 3 | Total of personnel | 147 |
| Havildars and Lance-Havildars. | 2 | 2 | 2 | 6 | " horses ... | 152 |
| Trumpeter ... | 1 | ... | ... | 1 | " carriages | 21 |
| In ammunition wagons ... | 42 | 36 | 36 | 114 | Rounds of 12-pr. ammunition. | 1,466 |
| Store cart and gun carriage. | ... | 6 | 6 | 12 | Rounds of S. A. ammunition, if all, '303. | 211,200 |
| Spare wheel ... | 2 | 2 | 2 | 6 | | |
| " lead ... | 2 | 2 | 2 | 6 | | |
| | 50 | 49 | 49 | 148 | | |
| British officer's chargers | ... | ... | ... | 2 | | |
| " " pony ... | ... | ... | ... | 1 | | |
| Hospital Assistant's pony | ... | ... | ... | 1 | | |
| | | | | 4 | | |
| <i>Carriages.</i> | | | | | Ammunition carried— | |
| Store wagon ... | ... | ... | 1 | 1 | 36 | |
| Spare gun carriage ... | ... | 1 | ... | 1 | 1,430 | |
| R. A. ammunition wagons | 5 | 4 | 4 | 13 | 211,200 | |
| S. A. A. wagons ... | 2 | 2 | 2 | 6 | | |
| | 7 | 7 | 7 | 21 | | |

E

Calculation of tentage for three Unit.
Under present arrangements (from F. S. E. tables).

| — | 160 lbs. | 80 lbs. | 40 lbs. | Total weight, maunds. |
|--|----------|---------|---------|-----------------------|
| 3 officers (private property) ... | ... | 3 | ... | 3 |
| 2 staff sergeants ... | ... | 1 | ... | 1 |
| 14 non-commissioned officers and men. | 1 | ... | ... | 2 |
| 73 native non-commissioned officers and drivers. | 4 | ... | ... | 8 |
| 72 followers ... | 3 | ... | ... | 6 |
| Office ... | ... | 1 | ... | 1 |
| Quarter-guard ... | ... | 1 | ... | 1 |
| Surgery ... | ... | 1 | ... | 1 |
| Transport establishment ... | ... | 1 | ... | 1 |
| | 8 | 8 | ... | 24 |

F

In proposed ammunition company.

| — | 160 lbs. | 80 lbs. | 40 lbs. | Total weight, maunds. |
|---|----------|---------|---------|-----------------------|
| 1 officer (private property) ... | ... | 1 | ... | 1 |
| 3 native officers (private) ... | ... | ... | 3 | 1½ |
| 110 non-commissioned officers and sepoys. (The clerk sleeps in office tent,) | 5 | 1 | ... | 11 |
| 25 followers ... | 1 | ... | ... | 2 |
| Office ... | ... | 1 | ... | 1 |
| Quarter-guard ... | ... | 1 | ... | 1 |
| Surgery ... | ... | 1 | ... | 1 |
| Transport establishment ... | ... | 1 | ... | 1 |
| | 6 | 6 | 3 | 19½ |

Note.—Tent, 160 lbs. = 16 Europeans = 20 sepoys = 25 followers.

“ 80 lbs. = 8 “ = 10 “ = 12 “

G

Calculation of Normal Transport.

Under present arrangements.

| | Tentage, lbs. | Bag- gage, lbs. | lbs. | Maunds. | Mules. | Camels. |
|--|------------------|-----------------------|------|---------|--------|---------|
| 3 British officers @ ... | 80 | 70 | 450 | 7½ | 46½ | 10 |
| 3 officers' personal servants @ ... | ... | 10 | 30 | | | |
| 1 officers' general servants @ ... | ... | 10 | 10 | | | |
| 6 officers' syces @ ... | 5 | 10 | 90 | | | |
| 3 officers' grass-cuts @ ... | 5 | ... | 5 | 24½ | ... | 6 |
| 16 British non-commissioned officers and men @ ... | ... | 30 | ... | | | |
| 73 native non-commissioned officers and drivers @ ... | ... | 26½ | ... | | | |
| 73 public followers @ ... | ... | 10 | ... | | | |
| Miscellaneous stores ... | ... | ... | ... | 7½ | 28½ | ... |
| Tentage (exclusive of surgery and transport) ... | ... | ... | ... | 19 | | |
| Office books, etc. ... | ... | ... | ... | 2 | | |
| 1 pair of pakhals ... | ... | ... | ... | ... | | |
| Hospital establishment, medical stores, office furniture, and cooking utensils ... | ... | ... | ... | ... | 3 | 16 |
| Total transport | | | | ... | 4 | |

H

For proposed Company.

| | lbs. | Maunds. | Mules. | Camels. |
|---|------|---------|--------|---------|
| 1 British officer ... | 150 | 5 | ... | 1 |
| 3 native officers ... | 240 | | | |
| 1 British officer's personal servant ... | 10 | | | |
| 2 „ officer's syces ... | 30 | | | |
| 1 „ officer's grass-cut ... | 5 | 10 | ... | 2 |
| Miscellaneous stores ... | ... | | | |
| Office books, etc. ... | ... | | | |
| 110 non-commissioned officers and sepoy's at 26½ lbs. | ... | | | |
| 25 followers at 10 lbs. | ... | 39½ | ... | 8 |
| Store, shoes, and one sepoy's baggage ... | ... | 3½ | | |
| Tentage, exclusive of officers' transport and surgery. | ... | ... | | |
| 1 pair of pakhals ... | ... | 15 | | |
| Hospital establishment and medical stores, office furniture and utensils. | ... | ... | 1 | 3 |
| | ... | ... | 3 | |
| Total | ... | ... | 4 | 15 |

Note.—One camel carries five maunds.
One mule carries two maunds.

J

Calculation cost of various ranks.

| | Rate of pay. | Compensation, previous average. | Clothing and bedding. | Rations. | Horse allowance. | Exchange compensation. | Pay per annum. | Total annual cost. |
|--|--------------------------------|--|-----------------------|----------------------|------------------|------------------------|----------------|--------------------|
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Captain, R.A. | 417 | ... | ... | ... | 720 | 313 | 5,010 | 6,043 |
| Lieutenant, R.A. | 265 | (With two horses in an ammunition column.) | | | 720 | 199 | 3,189 | 4,108 |
| Sergeant-Major or Quartermaster Sergeant | <i>s. d.</i> per day 4 2 | ... | 85 | 90 | ... | ... | 1,141 | 1,316 |
| Sergeant, R.A. | 3 2 | ... | 79 | 90 | ... | ... | 867 | 1,035 |
| Sergeant Farriers | 3 7 | ... | 79 | 90 | ... | ... | 981 | 1,150 |
| Bombardier | 2 3 | ... | 56 | 90 | ... | ... | 616 | 762 |
| 1st Trumpeter | 2 0 | ... | 56 | 90 | ... | ... | 547 | 693 |
| Gunner | 1 2½ Rs. | ... | 58 | 90 | ... | ... | 330 | 478 |
| Subadar | 100 | 15 | 33 | ... | ... | ... | 1,200 | 1,248 |
| " | 80 | 15 | 33 | ... | ... | ... | 960 | 1,008 |
| Jemadar | 50 | 15 | 33 | ... | ... | ... | 600 | 648 |
| " | 40 | 15 | 33 | ... | ... | ... | 480 | 528 |
| Havildar | 16 | 15 | 33 | ... | ... | ... | 192 | 240 |
| Naik, Native Infantry | 14 | 15 | 33 | ... | ... | ... | 168 | 216 |
| Naik, R.A., under present condition | 12 | 15 | 33 | ... | ... | ... | 144 | 192 |
| Native driver and sepoy | 9 | 15 | 33 | ... | ... | ... | 108 | 156 |
| Store lascar | 6 | 15 | 3 | ... | ... | ... | 72 | 90 |
| Tent " | 5-8 | 5 | 3 | ... | ... | ... | 66 | 74 |
| Jemadar syce | 7 | 5 | ... | ... | ... | ... | 84 | 89 |
| Syce or doolie-bearer | 6 | 5 | ... | ... | ... | ... | 72 | 77 |
| Bullock-driver, weighman, langri, bhistic | 5 | 5 | ... | ... | ... | ... | 60 | 65 |
| Sweeper | 4 | 5 | ... | Field allow- ance | ... | ... | 48 | 53 |
| Hospital Assistant, 2nd grade | 40 | ... | ... | 60 | ... | ... | 480 | 540 |

| | Rations and grass at Rs. 12 per mensem. | Clothing. | Line-gear allowance and renewals. | Shoeing. | Gram-crushing allowance. | Cost on arrival at unit. Rs. 900. Divided by 10 years' service. | Stabling. | Total annual cost. |
|-----------|--|-----------|--------------------------------------|----------|--------------------------|---|-----------|--------------------|
| | Rs. 144 | Rs. 6 | Rs. 15 | Rs. 9 | Rs. 2½ | Rs. 90 | Rs. 7 | Rs. 265½ |
| Horse ... | | | | | | | | |

THE CUSTOMS OF WAR.

BY LIEUTENANT-COLONEL J. E. NIXON, 18TH BENGAL LANCERS.

The object of this essay is to bring to your notice the manner in which the hardships that ensue on the existence of a state of war between two peoples are mitigated in modern times.

Sir Henry Maine once wrote that "War appears as old as mankind, but peace is a modern invention. Our intelligence is only just beginning to enable us to penetrate the clouds that rest on the further verge of history; but what does seem clear to trained observation is the universal belligerency of primitive mankind: not only is war to be seen everywhere, but it is war more atrocious than we, with our ideas, can easily conceive." Torture of prisoners, and mutilation of the dead and wounded—both atrocious according to our ideas—still obtain among savages. We have only to read Slatin Pasha's book to get an idea of the "universal belligerency," with its concomitant horrors, that exists in Africa at the present day. In the comparatively civilised time of the Romans even, a prisoner of war became a slave, deprived of liberty, family and country, and dispossessed of all legal rights.

From the earliest times, however, we find that one prohibition has existed as a law of war—namely, the prohibition against the poisoning of water and food. This prohibition has been attributed to the idea that killing by poisoning of water and food was a peculiarly dreadful and painful mode of destroying an enemy, and also to the notion that it was not quite fair. Whatever the basis on which it rested, whether on a supposed law of God or on a law of nature, it was embodied in the old Roman law, and has since been absorbed into the more modern law of nations. The cutting off of water-supplies, and filling in of wells, is, however, a legitimate means of compassing the surrender or destruction of an enemy, as is also the making of water undrinkable, by the use, for example, of mineral oils. Starting from this prohibition against poisoning water and food, I will endeavour to trace the rise of other "customs" or "laws" which have made or make for the alleviation of the horrors and the amelioration of the conduct of war. Grotius was the first of the Jurists and wrote in

the beginning of the seventeenth century on the "Laws of War and Peace," and his writings, and the works of those who followed him, formed the foundations on which arose the edifice of humanity in war.

In the middle ages, a large part of the armies of that period were composed of Free Companies—bodies of men whose allegiance was transferred from one side to the other, according as the prospect of better pay or more plunder attracted them. Among them a feeling of self-interest set in motion forces that operated towards a gentler treatment of prisoners of war, and paved the way towards expressions of opinion in condemnation of acts, contemplated or committed, of undue severity and savagery. In the eyes of these mercenaries, prisoners came to have a value in proportion to the amount of ransom which could be extracted from them, and hence it was the interest of the captor to keep his prisoner alive—a custom of which the exchange of prisoners of war is the survival. But the spirit of even this amount of humanity was not generally diffused; in 1347, when Edward the III. took Calais, he wished—and it was quite within his right and in accordance with the spirit of the times—to have executed some of the prisoners for having resisted his siege. In 1419, at the capture of Rouen by Henry V., three citizens were handed over for execution; and in the same year, when the Castle of Montereau refused to surrender, Henry V. hanged twenty prisoners in sight of the place. In 1631, Tilly ravaged the Palatinate with merciless severity; on the capture of Magdeburg, for instance, out of 25,000 to 30,000 inhabitants only some 2,000 were left alive. This whole campaign, as well as this particular deed, has always been held up as an example of unlawful and uncalled for ferocity. The effects of Grotius' writings were, however, beginning to be felt, and we find that, in 1672, when Louis XIV of France informed the Dutch, by proclamation, that, in the coming campaign, his troops would be instructed to grant no quarter, the whole of Europe was roused to energetic remonstrance and disapproval, and, as a consequence of this exhibition of opinion, the orders were not acted on.

In war between civilised nations, certain principles have been accepted which are as binding as laws—

First.—Assassination is repugnant to nature and contrary to the recognised system of carrying on war. It was not, however, till 1584, when William of Orange was murdered, that assassination was generally reprobated. Sir

Henry Maine remarks that "there will always be some danger of this crime being resorted to, when a war, as is sometimes the case, depends on the life of one individual, a great statesman or a great General. This was the position of William of Orange in the opinion of his Catholic enemies." The removal of eminent men by assassination is not unknown in India, and no doubt instances will occur to your minds where this has been accomplished. In 1806, shortly after Fox became Secretary of State, an offer was made to him to assassinate Napoleon, if it met with the approbation of the English Ministry. Fox had the man, a foreigner, secured and sent out of the Kingdom and informed Talleyrand, the French Minister for Foreign Affairs, by whom he was, on Napoleon's behalf, suitably thanked. Napoleon's conduct at a later date is remarkable. A man named Cantillon had once attempted to assassinate the Duke of Wellington, and Napoleon in his will left 10,000 francs to Cantillon, on the ground that "Cantillon had as much right to assassinate that oligarchist as the latter had to send me to perish on the rock of St. Helena."

Secondly.—Quarter must not be refused. This is a change for the better from ancient practice. We read of the Dutch-Spanish War in the Netherlands in the sixteenth century that, when the commander of Weerd Castle asked at last for a capitulation with the honours of war, he was told that the honours of war were halters for a garrison that had dared to defend such a hovel against artillery. The commandant was killed first and the remaining twenty-six men were made to draw black and white straws; the twelve who drew white straws were hanged, the thirteenth escaping only by consenting to act as executioner of the rest. That a barbarous enemy gives no quarter is no justification for a civilised belligerent to adopt similar cruel measures.

Thirdly.—The non-combatant population, if peaceable, are not to be exposed to violence. This was the spirit of the German proclamation in France in 1870 and of ours in 1878 in Afghanistan; but in both cases severe action had to be taken against those of the enemy who acted as, and might reasonably be mistaken for, common marauders. Although the effect of a duly declared or officially recognised war is to place every individual of the one State in legal hostility to every individual of which the other is composed, modern custom exempts from the direct operations of war the subjects of the hostile State who are non-combatants and refrain from all acts of hostility.

Fourthly.—Reprisals are not to be undertaken out of revenge, but only if justified and strictly necessary. The enemy may have violated the customs of war and may have had recourse to measures condemned by the law of nations, and in such cases reprisals may be justified, but in every case it is the rule that they should be allowed only on the authority of the Commander-in-Chief, who shall likewise determine the degree of their severity and duration. In the interests of the troops themselves, as well as that of humanity and of civilisation, a line should be distinctly drawn, which should be passed on no pretext whatever. The outrages committed by an uncivilised enemy may require strong measures of reprisal, but on every ground such retaliation as the ruin of growing crops, the “ringing” or cutting down of fruit and palm trees, the destruction of mills and water-wheels, the breaking down of dams and water-channels should be rigorously avoided. Such measures breed hatred among the population and throw back the progress of the country for years. In 1794, the French Government issued a decree that no English or Hanoverian prisoners were to be allowed quarter, but as the British Government refused to reciprocate the decree, its provisions were not carried out.

Fifthly.—Public property is liable to seizure, but it is ungenerous to seize records, scientific objects, works of art, historical monuments, and property belonging to the State or to public establishments, which is consecrated to education, charity or public worship. Private property should be respected so long as its seizure does not tend to terminate the war, and bring the enemy to submission. The protection of private property arises out of the comparatively modern prohibition of indiscriminate pillage on the capture of a town. Our military law makes such an offence punishable with death, if the offender is convicted by court-martial. In the Peninsula, however, the Duke of Wellington’s difficulty lay in obtaining evidence sufficient to obtain a conviction by court-martial. It is certain that in respect of pillage there will be less cause for complaint in the future than has existed in the past. In 1796 and 1797, Napoleon conveyed many works of art from Italy to Paris, but these were returned, in 1815, by the allies, to the cities from which they had been seized. Junot, who escaped from Lisbon by the convention of Cintra, carried off, as his private property, a goodly spoil in the shape of pictures, statues, and jewels, which he had gathered mostly from the churches of Spain.

Sixthly.—The detention, on the outbreak of war, of all the subjects of one of the hostile powers who are resident within the territory of the other is against modern practice. In 1803, when war broke out with France, Napoleon seized about 10,000 English subjects resident in France and kept them prisoners till the peace of 1814. During the Crimean War, however, Russians were allowed to reside peaceably both in England and in France, but in 1870 all Germans were ordered out of France at a few days' notice.

The customs of war are the outcome of what the older Jurists called the "Law of Nations," and have been defined to "consist of general principles of right and justice, equally suitable to the government of individuals, in a state of natural equality, and to the relations and conduct of nations; of a collection of usages, customs and opinions, the growth of civilisation and commerce."

In addition to these customs of war, which are incumbent equally on all civilised peoples when a state of belligerency exists between any of them, a series of international agreements have been arrived at, at meetings of the representatives of the Powers, where endeavours have been made, in the comparatively recent past, to further ameliorate the rigours of war. Among them are the declaration of Paris of 1856; the conventions of Geneva, regarding the wounded, in 1864, 1865, and 1866; the declaration of St. Petersburg of 1868; and the conference of Brussels of 1874. Two belligerents, moreover, have granted each other privileges during the war, as in 1866 Prussia and Austria had a mutual agreement, and in 1870 the Germans by proclamation exempted French ships from capture. The declaration of St. Petersburg of 1868, which was proposed by Alexander II. and agreed to by all civilised Powers, has reference to both land and sea warfare. The Powers agreed not to use explosive projectiles under 400 grammes weight (about 14 ounces), the object being to obviate unnecessary pain in disabling an enemy. The Geneva conventions relate to the treatment of wounded and the immunity to be guaranteed to hospitals and ambulances, and to all buildings and persons marked with the distinctive badge of the Red Cross, and appear from their nature to have regard to land war only. There have, however, been suspicions that the Red Cross has been used to cloak designs, which are not in accord with the objects and aims of the institutions which are sheltered under the cross of Geneva. We have the authority of General Sir Beauchamp

Walker, who was present during most of the Franco-German War as English attaché with the Prussian Royal Head Quarters, that, unless under severe discipline and rules, the followers of the Red Cross can be a most mischievous horde, and that the Red Cross is sometimes pushed into positions which have more of a military than a humane character, in the hope that it may deter the enemy from firing on a position. This, however, we may believe is an exceptional case, and is a matter where the strength of character and the power of bearing responsibility of the commanding General will enable him to baffle the underhand designs of the enemy.

The conference of Brussels in 1874 was opened at the instance of the Emperor of Russia; Great Britain sent over, as a representative without Powers, Sir Alfred Horsford, and intimated that, if any discussion was raised on the conduct of naval warfare, her representative would withdraw. The attitude of the British Government towards the conference was one of great reserve, if not of suspicion, and, in consequence of the instructions given him, the part taken by Sir Alfred Horsford was mainly one of observation only. The conference did not result in any general agreement as a whole, although some of its recommendations are embodied, as rules, in the various manuals of military law, the issue of which in nearly every country was one result of the conference, though the Federal Government of America had in 1863 issued "instructions" for the guidance of their armies immediately on the commencement of the war. One subject on which the discussion at the conference was prolonged, and over which no general consensus of opinion was registered, was the rights of defence possessed by the inhabitants of an invaded country, and the treatment that should be accorded to such inhabitants as rise in defence of their hearths and homes. The view of the smaller States—Belgium, Holland, Portugal, Switzerland, and Spain—was to the effect that an invaded country cannot be restricted in any way as to the sources whence it may draw its means of defence, and that it may have recourse to every aid that patriotism may proffer or suggest. Switzerland particularly, the whole population of which is practically a militia, refused to admit the power of their own Government to class them or to recognise the right of any hostile nation to class them as common marauders, when defending their native country, or to treat them, if captured, as other than prisoners of war. The German view, diametrically opposed to the above, was that it is inexpedient

in the interests of humanity to give encouragement to the inhabitants of an occupied district to rise against the invader, as such a course would lead to repressive measures which would increase rather than diminish the horrors of war. The French in the Peninsular War found it necessary to punish all Spanish peasants found bearing arms, and Wellington in 1814 in France issued a proclamation to the French peasants who were carrying on a partisan warfare against him, in which he called on them either to join the French army openly or stay peaceably at home, otherwise he would burn their villages and hang the inhabitants. In 1870, the French Franc-tireurs treacherously killed many Prussians, thus provoking some terrible reprisals. The Prussians acknowledged the legality of Gambetta's *levée en masse* and the right of the Franc-tireurs to fight, provided that they wore some distinctive marks recognisable at a distance, to enable them to be distinguished from the armed forces and the general population. Latterly the Franc-tireurs had papers and their officers commissions, and thus their military character was made patent and admitted.

The Brussels conference eventually laid down that militia and volunteers, to be entitled to a legal status as soldiers, must have at their head a person responsible for his subordinates; that they must wear some distinctive badge recognisable at a distance; that they carry arms openly, and conform to the customs of war. It was agreed also that only such violence should be used towards prisoners of war as to compel them to obey such orders as their captors may find necessary to issue to prevent them taking any further part in the war.

By the declaration of St. Petersburg and the Geneva conventions we see that matters have been assented to by all the Powers, which are as binding as any international laws can be, where reliance is placed on the good faith and self-interest of nations. The point of the Brussels conference, in the absence of any agreement, seems to be that certain recommendations that will tend towards mitigating the severity of war have been accepted and published in official manuals of war for the guidance of officers.

The first of the declarations in point of time—that of Paris—concerns us more nearly than other Powers, inasmuch as it refers entirely to maritime war. Its provisions have been, and are still, debated warmly, and a close examination of them is of interest. The declaration of Paris was not joined in by Spain, it was not assented to by the United States of America,

it was censured in Parliament in 1871, it has been repeatedly attacked in Parliament since that date, and it is believed that, though signed by the English delegate, Lord Clarendon, it has never received the formal recognition of the British Government. There is, however, a difference of opinion among experts as to whether it is to our advantage to adhere to its provisions or to cut ourselves adrift from them, and in the latter case the further consideration is presented as to the time we should choose to signify our refusal to follow the declaration. The following are the points contained in the declaration:—

- (1) Privateering is and remains abolished.
- (2) The neutral flag covers the enemy's goods, except contraband of war.
- (3) Neutral goods, except contraband of war, are not liable to capture under the enemy's flag.
- (4) Blockades, in order to be binding, must be effective.

Before considering these provisions in detail, I would like to point out that, though they tend to mitigate the severities of war, we are bound to have regard to another aspect of the question, namely, how far, by accepting them, do we, as a maritime nation, deprive ourselves of one or more of the weapons in our national armoury? The first rule of nature is self-preservation, and our first object is to disable our enemy, and hence we should very carefully weigh what is our prospective gain or loss in giving our adherence to such rules as are embodied in the declaration.

The first rule, that of abolishing privateering, concerns the belligerents only, while the others touch the interests of neutrals also. In the war between Chili and Spain, in 1865, the former State, which had given its adhesion to the declaration of Paris, re-asserted her right to use privateers, because it was open to Spain, who had never signed the declaration, to use them. This agreement concerned no other Governments but Spain and Chili. But the case of the neutral flag and neutral goods under the enemy's flag gives other Powers than the belligerents a right of a voice in the matter, and the latter is far more serious than that of privateering. The following is a definition of a privateer:—"An armed private ship commissioned by a belligerent sovereign to depredate on the commerce of his enemy and rewarded by a share of the capture." Owners of privateers were under heavy obligations to confine themselves within the limits of their commission. This commission was not to "kill, burn and destroy," as ran the commission of the officers of the Royal Navy, but exclusively to capture and bring into port captured vessels and cargo,

there to be duly adjudicated on by properly constituted tribunals (admiralty courts), and under no pretext whatever were they allowed to break bulk. Any violation of these obligations was severely and summarily punished, and commanders of privateers were required to find large pecuniary security for their conduct. We can easily charter a large number of merchant steamers, convert them into cruisers, put them under command of naval officers, and so find a substitute for privateers. Our admiralty subsidise eleven steamers, and seventeen others are specially held at their disposal as armed cruisers, but the faster of them would probably be used as look-out and despatch vessels for the fleet, rather than be allowed to prey on the enemy's commerce. The United States refused their assent to the declaration, on the ground that "large armies and navies, as permanent establishments, are detrimental to national prosperity, and dangerous to civil liberty, expensive and burdensome to the people and to some extent a menace to peace; that their policy is adverse to such large establishments, and that they rely on a volunteer army and their mercantile marine; that their interest is similar to that of Powers which are not likely to be dominant naval Powers; and that it is the interest of great naval Powers to forego the use of privateers on condition that weaker Powers agree to part with their most effective means of protecting their commerce, and that the Power with decided naval superiority will become more firmly the mistress of the ocean, as it will not have to look after its commerce, but can engage the enemy's war ships with every chance of superiority on every occasion." The United States, however, were prepared to go a step further and assent to it, if all private property at sea were exempted from capture, but this suggestion has not found acceptance at the hand of any Power.

Notwithstanding this profession of faith, the United States have of late embarked on an extended programme of naval construction. Their main contention is that the non-employment of privateers restricts the power of protecting their own and injuring their enemy's commerce. Let us glance at our procedure when we wished to injure our enemy and establish ourselves as the carriers of the world. "In 1650, Cromwell prohibited the traffic of ships manned or built in foreign ports with the plantations of America; and in 1651 the famous Act of Navigation was passed, which was designed to injure the Dutch—our great rivals in the carrying trade of the world. This Act prescribed that all the produce of Asia, Africa, and

America should be excluded from the British Islands and Colonies, unless imported in English-built ships, commanded by an English master, and manned by a crew of which the greater part was English. The Privy Council is now vested, since 1849, with discriminating powers in favour of English ships, and these powers are merely dormant, no restriction being placed on foreign commerce."

In the end of the last century we had displaced the Dutch from the position of the carriers of the world, and we now own 54 per cent. of the total number of steamers and over 59 per cent. of the total steamer tonnage in the world. The Germans come next with 7 per cent. of steamers and 8 per cent. of steamer tonnage, then the United States with 5 and $5\frac{1}{3}$ per cent., the Norwegians $4\frac{1}{2}$ and nearly 3 per cent., and French with 4 and 5 per cent., respectively.

As regards sailing ships, the percentages of the numbers possessed by each of the above Powers is as follows:—British 24, United States 15, Norwegian 14, German 4, and French $3\frac{1}{4}$. The average tonnage of British steamers is 1,424 tons against 1,151 tons for foreign steamers, and 739 tons for British sailing ships against 406 tons for foreign sailing ships. In 1792, the clearances for our whole foreign trade from the United Kingdom were 38 daily, and in 1894, according to the Statesman's year book, excluding foreign-owned vessels, 208 daily. In the French War, we, in common with our adversaries, employed privateers, and, notwithstanding the use of convoys, we lost, from 1793 to 1800, four ships every three days, near our coasts as well as elsewhere, our consolation being that we inflicted a larger proportionate damage upon France.

At first sight it would appear that the abolition of privateering is entirely in our interest, and that the exemption of all private ships from capture would be still more so. Theoretically this must be admitted, but the weak point in the argument is, whether human nature, being as it is, any enemy would hold to such a clause, when, by repudiating it, he would have a chance of doing us damage. It would establish the anomalous situation of national war and commercial peace, and it is not probable that our enemy would allow our commerce to go free, "and make money and let our merchants enrich themselves as though no war was going on while our navy would blockade his ports;" nor is it likely that he would allow our warships to be used against his, without providing something else for them to do, by imposing on them the necessity of protecting, in all parts of the world, our

mercantile marine, especially those ships conveying foodstuffs to England for the sustenance of the population. The matter of insurance is at the root of the question, whether we should use every means at our disposal to coerce our enemy. The two following examples will show the effect on insurance of the dominion of the sea:—"Premia of insurance, which in 1772 had been 15 guineas per cent. on English ships engaged in trade with India and China, did not exceed one-half that rate at any period between the spring of 1793 and the close of that terrible struggle;" and it will be remembered that Trafalgar was not fought till 1805. Again, in the beginning of the war in 1870 war risks on German ships were taken freely at 5 shillings per cent., but after a few losses, those underwriters, who had taken them at that rate, were glad to sell them at £5. High insurance means increase of freight, and hence increased cost of food, which affects us in England more than it does any other nation or any of our colonies. High war rates of insurance, ensuing from a feeling on the part of our merchants of the inability of our navy to keep clear our trade routes, would very soon lead to a sale, or temporary transfer, of our ships to neutral Powers, who would also be only too glad to build ships to carry our commerce for it. That this danger of transfer of flag is very real may be inferred from the single example of New York, where, during the first two years of the north and south war, 38 per cent. of its trade was transferred away from the American flag to neutral Powers—a loss from which the trade has not recovered.

The second and third clauses of the declaration, that the neutral flag covers the enemy's goods and that neutral goods under the enemy's flag are not liable to capture, present many points of interest to us. These pretensions were put forward by the armed neutrality of 1780, that is, by the courts of Russia, Denmark, Sweden, and Portugal, in the name of civilisation and humanity and on the pretext of mitigating the horrors of war; but in the instrument in which they were embodied the matter was put in its true light: it stated that "there is no reason why the neutral should forego the considerable advantage offered him by a state of war between other nations." It is, in fact, a claim to make a profit out of its neighbours' calamities. Our practice of old, and that of all maritime States and of those States who have not assented to the declaration of Paris, can be summed in words of Lord Stowell that enemy's property is seizable "whatever the ships, whatever the cargoes, and whatever the destination," and that neutral

property must always be restored, and neutrals subjected to as little loss and inconvenience as was consistent with the exercise of our rights over the enemy's property. Our admiralty courts, established in every seaport, gave the commander of the neutral vessel the full amount of freight he was entitled to and also demurrage for illegal or unnecessary detention. This right of seizure includes the right of search, and so long as contraband of war is prohibited, the right of search remains. The second armed neutrality of 1800 proposed that merchant ships under convoy should not be searched for contraband of war, and that a merchantman belonging to any one of the coalesced neutrals could put herself under convoy of any of their men-of-war, wherever met. This we absolutely refused to admit, and we issued letters of marque and within twelve months dissolved this armed neutrality. Contraband of war cannot be accurately defined. Respecting things directly used in war, such as weapons and ammunition, there is no doubt; the raw materials of sails and cordage are doubtful, but brass, iron, steel, coal, horses, provisions are less doubtful; in fact, the contraband or non-contraband nature of the cargo depends on the port of destination and the nature of the war. At the end of the last century, the English Government discovered there was scarcity in France, and therefore seized all vessels laden with provisions bound for any French port. It is certain that France will return the compliment in the future, if she can, as the main food-supply of England comes from across the sea, and she would undoubtedly declare wheat contraband at once. In the improved conditions of communications on land, any such action on our part in regard to France or a continental Power, supposing that is that we adhere to this declaration, would probably be of little avail, unless we were enabled by our alliances to establish a blockade on the land frontiers also of the State with which we were at war. In 1870, England refused to allow coal to be carried to a French fleet in the North Sea, but refused to admit that coal was necessarily contraband. We have seen within the last few weeks that the Russian ships engaged in the blockade of Crete by the Powers were coaled by English coal, but, as far as I know, no question has arisen of the supply of coal to the Greek or Turkish fleets after these States declared war. In the expedition against Tonquin, France declared rice contraband of war. In the American Civil war, cotton was declared contraband by the Federals, as it was the main resource of the South for the prosecution of the war, and was

officially described as "the foundation on which the hopes of the rebellion were built; substantially the only means the insurgents had of securing influence abroad, the life of the confederacy depending as much on its cotton as on its men: if they had had no cotton, they would not have had, after the first year or two, the means to support war; to a large extent it furnished the munitions of war and kept the force in the field, and was therefore hostile property, legitimately the subject of capture by the enemy."

If, then, an enemy may declare any of our manufactures, and will certainly declare our provisions, contraband of war, it behoves us to use all means in our power to protect them along our trade routes. In the Crimean War, with a view to meeting the wishes of France, the order in Council, in providing the line of conduct to be followed by both the French and the English admirals, stated "in order to preserve the commerce of neutrals from all unnecessary obstruction, Her Majesty is *willing, for the present, to waive a part of the belligerent rights* appertaining to her by the law of nations," and it was well understood that we only waived our rights and did not abandon them. The result of this was that Russian produce was shipped at Memel and Königsberg in Swedish and Prussian ships, and was safe from capture; the navy exercised no pressure on Russian commerce, and the war was brought to an end solely by the force of the land forces in the Crimea. The clauses of the declaration practically amount to this, that war at sea is abolished, and the arbitrament of war is left to the decision of big battalions on land. "Nobody cares what England wishes since she gave up her maritime power," said Prince Bismark during the Schleswig-Holstein negotiations. Compulsion of our enemy's commerce is not only our main resource in war, but the sole sanction of our power.

The exception to the immunity from capture of neutral property is in the case of property carried on a ship attempting, or reasonably suspected of attempting, to enter a blockaded port. This brings us to the consideration of the fourth clause of the declaration that a blockade to be binding must be effective. A blockade by sea is defined as "the interruption by a belligerent of access to a place or territory in the possession of the enemy," and blockading the enemy's coasts and harbours is one of the methods in which compulsion may be applied to his commerce, to prevent his merchants from making money, and is a right that can always be enforced. The

origin of the clause we are considering appears to be this:— England was the backbone of all the coalitions made against Napoleon, and, after the destruction of the French naval power at Trafalgar, England, Prussia, and Russia combined in the fourth coalition which was declared in August 1806. Napoleon could not touch England, for, to use his own expression, he could not put a cockle-boat to sea without its being captured, and so he invaded Prussia, before it could get assistance from either of its allies, and, beating the Prussians at Jena and Auerstadt, entered Berlin on the 27th, and issued his famous "Berlin decree" on the 31st October 1806, whereby the British Isles were declared to be in a state of blockade, all commerce with England interdicted, and the sale of English goods on the Continent forbidden. This was essentially a "paper" blockade and, owing to the elements of weakness in the aggregation of States then held in sway by Napoleon, and the impossibility of carrying out the prohibition, was mostly ineffective.

We retaliated by issuing an order in Council which not only declared certain ports and coasts blockaded but also declared that all vessels *found on the high seas* bound for those ports or coasts were held to have broken the blockade and were to be seized accordingly, and this our sea power made effective. "Paper" blockade though it was, that is not effected by means of a blockading squadron off a particular coast or harbour, we practically prohibited all neutral trade, and as we made an exception to the general prohibition in favour of our own trade, while forbidding neutrals to trade with our enemy, we actually traded with him ourselves and enriched ourselves at the neutrals' expense.

Had France in 1870 on the declaration of war sequestered all German property afloat, which at that time amounted to some £40,000,000 annually, it is doubtful if the southern German States would have followed Prussia so readily, and also if the war would have lasted so long. Considering, then, that the provisions of this declaration all tend to restrict the exercise of our maritime strength, it remains for us to balance the measure of our certain disability in a big war against the possible gain to civilisation by adhering to a declaration, formulated in the interests of Powers who are weak at sea.

We have traced the amelioration of the conditions of war from the result of customs, which have acquired the sanctity and force of law, to international agreements, which, if we rely on the integrity and honour of the signatory Powers, may be

expected to be as binding as law. Those that are in complete consonance with modern ideas of civilised humanity, such as the Geneva convention, we may safely say, will never be transgressed. As regards those on which there is as yet no general consensus of opinion among all civilised peoples, as regards privateering for example, it is equally to be expected that the sense of the nation most concerned will express itself, as occasion arises, in conformity with its material interests. Many instances may recur to the mind where material interests have induced a nation to lay aside the moral obligations that are supposed to be incumbent on the signatory Power to a treaty. In 1878 by the Treaty of Berlin, to which Russia was a party, Batoum was made a free port, and in 1886 was closed by Russia. We ourselves have been guilty of a similar breach; in 1800 we took Malta, and at the peace of Amiens in 1802 we agreed to restore it to the French. Our material interests, however, overcame our moral obligations, and we refused to part with it, and kept it till 1814, when by the Treaty of Paris it was guaranteed to us. Treaties and engagements, then, do not always constitute a safeguard that their provisions will be carried out.

Two matters there are that make for the mitigation of the severities of war, which have apparently never been the subject of any international agreement or even discussion:—one is the declaration of war, and the other the matter of requisitions. All proposals in amelioration of war have been made apparently with the idea of preventing the belligerents from injuring each other too much, and not with the idea of causing the undertaking of a war to be hedged round with every conceivable precaution against war being started without careful consideration and due deliberation as to its necessity. This precaution the old custom of the declaration of war appeared calculated to fulfil, but we know that it is no longer customary, and even that we can enter on “a state of hostilities without war.” During 171 years, from 1700 to 1870, declarations of war prior to hostilities have been issued in only ten cases, while there are a hundred and seven instances of hostilities without previous declaration of war. Our custom and place of declaring war is noteworthy, and the last instance of it is thus recorded:—“The Sergeant-at-Arms, accompanied by some officials of the city, read from the steps of the Royal Exchange Her Majesty’s declaration of war against Russia.” In forty-one of the 107 instances, hostilities were entered upon in order to gain the advantages of surprise,

but now-a-days the telegraph overcomes time and space, and the tension between expectant belligerents is such that preparations are made in anticipation of the declaration of war, and the chance of effective surprise is diminished.

Requisitions may be for personal service and for food and forage. The former may be for guides, drivers, and workmen, but modern usage does not permit an enemy to force inhabitants to do acts directly hostile to their own country, nor to expose impressed citizens of the hostile nation to the same dangers as combatants, such as throwing up trenches or acting as drivers on the field of battle. Payment should be made as agreed on, or at least an equable indemnity offered. As regards requisitions for food and forage, we do not deem it expedient to make war support war to the extent of taking all we want without any payment whatever. We see from the Wellington despatches how solicitous the Duke was, in India, the Peninsula, Belgium, and France, in paying for all he got and how punctilious in arranging for the presence of responsible officers, provided with money, on the spot where supplies were obtained. This is our practice still, but this has not been the practice always with continental Powers, who have not respected private property and have made the invaded country support war. According to an official report presented to the French Assembly in 1872, the Germans made, over and above direct and indirect taxes, the following requisitions:—regular requisitions, about £13,000,000; property seized without requisition, about £11,000,000; property irregularly seized, about £16,000,000: a total of about £40,000,000, to which we may add the war indemnity of £200,000,000. Sir Beauchamp Walker says that it was not till the 8th October 1870 that the Germans began to pay for anything at all, and they adopted the practice in consequence of his representations on the subject to the Crown Prince of Prussia, to whose suite he was attached. An international agreement on this subject might, it seems, serve to mitigate the hardships of war, at all events as far as it affects private persons and private property on land.

A sweeping proposal has been made to abate war, namely, that all disputes be referred to an international tribunal—an ideal arrangement which is open to the following objections:—*First*—It is an imitation of the courts of justice established in every country, but it would lack the force necessary to back its decisions, the force in the background being the only thing that causes the decisions of a court of justice to run. We may

here remark that the Behring States Fishery award, which was given against the United States and in our favour, has not yet been paid. *Secondly*—As certain litigants are known in courts of law to be unpopular, so we are considered among nations, and besides we are known to be wealthy and well able to bear the burden of a money award better than any other community. *Thirdly*—The tribunal could not always be satisfactorily constituted. *Fourthly*—Its jurisdiction would not be continuous; it would be formed for the single occasion, and its members would not regard their opinion as a precedent, nor would they have regard to the law of nations as a whole. *Fifthly*—There is no such thing as a settled code of international law, as for instance in the Geneva arbitration between us and America, the disputants began by arguing with the arbitrators that they should have regard to a principle which one of them did not admit to be included in international law.

We have lately seen an adaptation of this proposal applied to our dispute with Venezuela. We admitted the right of the United States to intervene in the matter, and have consented to the appointment of a tribunal of two American and two British arbitrators, who may select any English-speaking man as a fifth member, and if they cannot agree as to their choice, the King of Sweden is to be appointed. But the general treaty of arbitration, for the establishment of a permanent tribunal, to which all disputed questions arising between the two English-speaking peoples shall be referred, has been killed, for the time being, by amendments in the American Senate. Let us hope that this method of settling our family differences may not be long deferred, however long we may have to wait for the establishment, in other regions of the world, of the period when—

“The war drum throbs no longer and the battle flags are furled.”

THE ORGANISATION AND TRAINING OF SCOUTS.

BY CAPTAIN R. G. BURTON, 1ST INFANTRY, HYDERABAD
CONTINGENT.

Lately, in reading an account of the campaign against the Mohmands, I observed a remark that the want of specially trained scouts had been much felt. It has always been a matter of surprise to me that we have not an establishment of trained scouts in our regiments, seeing that India offers such facilities for their training, and that their utility is undoubted in all the operations of war, especially in frontier expeditions in difficult and mountainous country.

Advisability of the measure.

In some continental armies, and more especially in the Russian army, the value of trained scouts has long been recognised, and their utility has been proved, in more than one campaign, to the success of which they have contributed.

At present the men we employ on reconnaissances, on the advanced parties of advanced guards, in patrols, on outpost duties, and as scouts preceding and covering the flanks of a force in the vicinity of an enemy, are taken promiscuously from the ranks.

How much better would it be if the men employed on these duties were specially selected and carefully trained! In fact, the advantages of having such a body of men, chosen for their physical and moral qualities, and trained for the special services required of them, are so obvious that it is scarcely necessary to discuss them.

The writer of this article has, for some time, studied the system of trained scouts, called *okhotniki*, obtaining in the Russian army; and it appears that, in inaugurating such a body of men, we could not do better than follow generally the Russian plan, and select and train our scout on the same lines as the *okhotniki*; for in Russia the system has long been carried out, and the scouts were called into existence in the campaigns on the Caucasus, where the conditions of warfare much resembled those on the north-west frontier of India. The term scout is perhaps scarcely comprehensive enough in view of the multifarious duties of the men, and the varied services on which they

Russian scouts.

would be employed in time of war ; but in the absence of a better term, it might be employed, and would in time attain a wider meaning than it has at present. A short outline of the history of the Russian *okhotniki* may serve to illustrate the use and duties of these scouts.

The *okhotniki* have long existed in the army of the Caucasus, but it was only in 1886 that they were regularly organised throughout the Russian army, when special measures were taken, and regulations issued for their instruction. The authorised establishment of these scouts was at first fixed at 64 men per regiment of four battalions, that is, four men per company ; but in 1892 the number was raised to eight per company, who are placed for training under a selected officer. These men live with their companies, and are assembled twice a week for special training. They are fully instructed as scouts, and their training is intended to fit them to perform their duties as the eyes and ears of the army, and to undertake dangerous enterprises of partisan warfare or detached operations. A most important part of their training consists in annual expeditions in pursuit of wild beasts, and during these excursions, military exercises are also undertaken. The men are especially selected from the most intelligent soldiers, possessed of good physique, and commanding those qualities, both physical and mental, which render them suitable for bold and dangerous enterprises.

The old irregular *okhotniki* of the army of the Caucasus performed many notable deeds, and were of great use in the Caucasian wars and in the last Turkish campaign, where the extremely difficult conditions of mountain warfare on the trans-Caucasian theatre of operations rendered their services exceedingly valuable.

In the "Caucasian Magazine" (No. IX, 1885), Colonel Schelkacheff, who commanded the *okhotniki* of the Kabardinski regiment in 1862, relates as follows:—

"In 1862 the *okhotniki* detachment of the Kabardinski regiment consisted of 70 men. They wore Asiatic costumes, and beards, and shaved their heads, and, as far as possible, adopted all the manners and customs of the mountaineers ; of which accomplishments they naturally only availed themselves when necessary. All these outward signs used to deceive the mountaineers themselves, and they not infrequently mistook the scouts for their own comrades, so that the Russians were frequently able to escape from the most difficult situations. They were armed with double-barrelled rifles, and were all

good marksmen, and, under favourable circumstances, their enterprises were almost always crowned with success."

Colonel Schelkacheff gives some striking examples of the boldness and enterprise of these guerilla warriors. There were brave men who, being well acquainted with the language of the mountaineers, penetrated far into their fastnesses among the hills, obtained information as to what was going on there, and gained such a knowledge of the country that they were able to act as reliable guides. They were always ready for action, as in those days they lived together and were not scattered among companies as they are now.

In the last Russo-Turkish war, some commanders of regiments, on their own initiative, formed bodies of scouts whose services were of the greatest assistance to the regular troops. At the second siege of Kars, bands of *okhotniki* were raised for the purpose of acquiring a knowledge of the locality and harassing the Turks by constant alarms. These men entirely bore out the hopes centred in them. By their frequent attacks on the Turkish outposts they wearied the vigilance of the enemy; so that one night, when the Turkish sentries observed a few men to their front, they took them for the hostile scouts, making their customary observations, and did not direct sufficient attention to their movements. But this time the wolf had come indeed, for the screen of *okhotniki* covered the advance of the storming columns, and the attack was so sudden that at some points the Turks did not even succeed in opening fire before the enemy was on the breast-works. Thus fell an almost impregnable fortress with a garrison of 30,000 men and 300 guns; and to its downfall the operations of the Russian scouts contributed in no small measure.

I have dwelt thus long on the subject of the scouts of a foreign army, in order to illustrate from actual history their value in time of war.

Selection of scouts. The next point will be to indicate the physical and mental qualities to be sought for in selecting such men in our own service. There are probably in most of our infantry regiments, both British and native, a sufficiency of officers and men suitable for employment as scouts. No doubt, one officer per regiment would be sufficient to undertake the training of the requisite number of men, and he should be chosen for his physical and mental qualities, the selection of men being made on the same principle. The necessary physical qualifications are a strong physique, active habits, good

sight and hearing, and a constitution able to stand the vicissitudes of arduous services. All these qualities would be improved by subsequent training; and so, in some measure, would the necessary mental attributes of intelligence, a determined character, boldness, fearlessness, and self-confidence so necessary in a scout; whilst a knowledge of the language of the country, in which the men are likely to operate, would be of special use.

It is probable that most of these qualities would be found in men who are keen sportsmen,* hunters of big game among the officers, and presumably there would be no difficulty in finding such men also in the ranks of British regiments.

In native regiments, where there are Sikhs, Gurkhas, or Pathans, there are sure to be men naturally suited for scouts; and where there are no sepoy of suitable quality, recruits might be obtained from the above-mentioned races, or from the Bhil, Gond, Banjara, or other tribes whose habit of wild life in the jungles would fit them for service.

To commence with one officer per battalion and four men per company (including two non-commissioned officers per battalion) would probably be a sufficient establishment, which might be increased as opportunity offered or requirements necessitated. The principal question for consideration is whether these men should be retained in their companies, or organised as a separate body in excess of the establishment.

The decision of this question is a matter of some difficulty, as there is much to be said on both sides, and it could probably only be determined by experience. In Russian literature, the majority of writers on this subject (and a voluminous literature is before me) appear to favour the organization of the scouts in a separate detachment, for reasons of command, of training, and of esprit-de-corps; all excellent reasons, yet the advisability of the adoption of this arrangement is somewhat doubtful, and many reasons might be adduced in favour of retaining the scouts with companies. When so retained, each company would have its complement of trained scouts, who could be assembled with those of other companies under the scout commander, when necessary, for training—say two days in the week—and for an expedition for two or more months at a suitable season of the year. They would thus not lose touch

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property must always be restored, and neutrals subjected to as little loss and inconvenience as was consistent with the exercise of our rights over the enemy's property. Our admiralty courts, established in every ship, gave the commander of the neutral vessel the full amount of freight he was entitled to and also demurrage for illegal or unnecessary detention. This right of seizure includes the right of search, and so long as contraband of war is probable the right of search remains. The second armed neutrality of 1800 provided that merchant ships under convoy should not be searched for contraband of war, and that a merchantman might join any one of the coalesced neutrals could put herself under the convoy of any of their men-of-war, wherever met. This was strictly refused to admit, and we issued letters of marque and within twelve months dissolved this armed neutrality. Contraband of war cannot be accurately defined. Russia's articles directly used in war, such as weapons and ammunition, there is no doubt; the raw materials of such articles are doubtful; but brass, iron, steel, coal, horses, &c. are less doubtful. In fact, the contraband or non-contraband nature of the cargo depends on the port of destination and the nature of the war. At the end of the last century, the British navy was so overladen with provisions bound for any French port. It is certain that France will remain the main enemy, therefore, as she can, as the main supply of British food comes from across the sea, and she will be able to get her wheat contraband at once. In the improved conditions of communications on land, any such action on our part is rejected. France or a continental Power says that it is that we adhere to this declaration, we have no right of blockade, unless we were enabled by our allies to establish a blockade on the land frontiers also of the State with which we were at war. In 1870, England refused to allow coal to be carried to a French fleet in the North Sea, but refused to admit that coal was necessarily contraband. We have seen within the last few weeks that the Russian ships engaged in the blockade of Crete by the Powers were loaded by English coal, but, as far as I know, no question has arisen of the supply of coal to the Greek or Turkish fleets at those States declared war. In the expedition against Mexico, England declared the contraband of war. In the American Civil War, cotton was declared contraband by the Powers, as it was the main resource of the South for the prosecution of the war, and was

officially described as "the foundation on which the hopes of the rebellion were built; substantially the only means the insurgents had of securing influence abroad, the life of the confederacy depending as much on its cotton as on its men: if they had had no cotton, they would not have had, after the first year or two, the means to support war; to a large extent it furnished the munitions of war and kept the force in the field, and was therefore hostile property, legitimately the subject of capture by the enemy."

If, then, an enemy may declare any of our manufactures, and will certainly declare our provisions, contraband of war, it behoves us to use all means in our power to protect them along our trade routes. In the Crimean War, with a view to meeting the wishes of France, the order in Council, in providing the line of conduct to be followed by both the French and the English admirals, stated "in order to preserve the commerce of neutrals from all unnecessary obstruction, Her Majesty is willing, for the present, to waive a part of the belligerent rights appertaining to her by the law of nations," and it was well understood that we only waived our rights and did not abandon them. The result of this was that Russian produce was shipped at Memel and Königsberg in Swedish and Prussian ships, and was safe from capture; the navy exercised no pressure on Russian commerce, and the war was brought to an end solely by the force of the land forces in the Crimea. The clauses of the declaration practically amount to this, that war at sea is abolished, and the arbitrament of war is left to the decision of big battalions on land. "Nobody cares what England wishes since she gave up her maritime power," said Prince Bismark during the Schleswig-Holstein negotiations. Compulsion of our enemy's commerce is not only our main resource in war, but the sole sanction of our power.

The exception to the immunity from capture of neutral property is in the case of property carried on a ship attempting, or reasonably suspected of attempting, to enter a blockaded port. This brings us to the consideration of the fourth clause of the declaration that a blockade to be binding must be effective. A blockade by sea is defined as "the interruption by a belligerent of access to a place or territory in the possession of the enemy," and blockading the enemy's coasts and harbours is one of the methods in which compulsion may be applied to his commerce, to prevent his merchants from making money, and is a right that can always be enforced. The

origin of the clause we are considering appears to be this:—England was the backbone of all the coalitions made against Napoleon, and, after the destruction of the French naval power at Trafalgar, England, Prussia, and Russia combined in the fourth coalition which was declared in August 1806. Napoleon could not touch England, for, to use his own expression, he could not put a cork-boat to sea without its being captured, and so he invaded Prussia, before it could get assistance from either of its allies, and, beating the Prussians at Jena and Austerlitz, entered Berlin on the 27th, and issued his famous "Berlin decree" on the 31st. October 1806, whereby the British Isles were declared to be in a state of blockade, all commerce with England interdicted, and the sale of English goods on the Continent forbidden. This was essentially a "paper" blockade and, owing to the elements of weakness in the aggregation of States then held in sway by Napoleon, and the impossibility of carrying out the prohibition, was mostly ineffective.

We retaliated by issuing an order in Council which not only declared certain ports and coasts Blockaded but also declared that all vessels *found in the high seas* bound for these ports or coasts were held to have broken the blockade and were to be seized accordingly, and thus our paper made creative, "Paper" blockade though it was, that is not effected by means of a blockading squadron off a particular coast or harbour, we practically protected all neutral trade, and as we made an exception to the general prohibition in favour of our own trade, while forbidding neutrals to trade with our enemy, we actually traded with them ourselves and covered ourselves at their neutrals' expense.

Had France in 1870 on the declaration of war sequestered all German property abroad, which at that time amounted to some £40,000,000 actually, it is doubtful if the Southern German States would have followed Prussia so readily, and also if the war would have lasted so long. Considering, then, that the provisors of this declaration acted to restrict the exercise of our maritime strength, it remains for us to balance the measure of our certain casualty in a long war against the possible gain to civilization by adhering to a declaration, I repeat, in the interests of Powers who are weak at sea.

We have traced the declaration of the customs of war from the result of treaties which have a perfect security and force of law, to treaties and agreements, which, if we rely on the integrity and honour of the signatory Powers, may be

expected to be as binding as law. Those that are in complete consonance with modern ideas of civilised humanity, such as the Geneva convention, we may safely say, will never be transgressed. As regards those on which there is as yet no general consensus of opinion among all civilised peoples, as regards privateering for example, it is equally to be expected that the sense of the nation most concerned will express itself, as occasion arises, in conformity with its material interests. Many instances may recur to the mind where material interests have induced a nation to lay aside the moral obligations that are supposed to be incumbent on the signatory Power to a treaty. In 1878 by the Treaty of Berlin, to which Russia was a party, Batoum was made a free port, and in 1886 was closed by Russia. We ourselves have been guilty of a similar breach; in 1800 we took Malta, and at the peace of Amiens in 1802 we agreed to restore it to the French. Our material interests, however, overcame our moral obligations, and we refused to part with it, and kept it till 1814, when by the Treaty of Paris it was guaranteed to us. Treaties and engagements, then, do not always constitute a safeguard that their provisions will be carried out.

Two matters there are that make for the mitigation of the severities of war, which have apparently never been the subject of any international agreement or even discussion:—one is the declaration of war, and the other the matter of requisitions. All proposals in amelioration of war have been made apparently with the idea of preventing the belligerents from injuring each other too much, and not with the idea of causing the undertaking of a war to be hedged round with every conceivable precaution against war being started without careful consideration and due deliberation as to its necessity. This precaution the old custom of the declaration of war appeared calculated to fulfil, but we know that it is no longer customary, and even that we can enter on “a state of hostilities without war.” During 171 years, from 1700 to 1870, declarations of war prior to hostilities have been issued in only ten cases, while there are a hundred and seven instances of hostilities without previous declaration of war. Our custom and place of declaring war is noteworthy, and the last instance of it is thus recorded:—“The Sergeant-at-Arms, accompanied by some officials of the city, read from the steps of the Royal Exchange Her Majesty’s declaration of war against Russia.” In forty-one of the 107 instances, hostilities were entered upon in order to gain the advantages of surprise,

but now-a-days the telegraph overcomes time and space, and the tension between expectant belligerents is such that preparations are made in anticipation of the declaration of war, and the chance of effective surprise is diminished.

Requisitions may be for personal service and for food and forage. The former may be for guides, drivers, and workmen, but modern usage does not permit an enemy to force inhabitants to do acts directly hostile to their own country, nor to expose impressed citizens of the hostile nation to the same dangers as combatants, such as throwing up trenches or acting as drivers on the field of battle. Payment should be made as agreed on, or at least an equitable indemnity offered. As regards requisitions for food and forage, we do not deem it expedient to make war support war to the extent of taking all we want without any payment whatever. We see from the Wellington despatches how solicitous the Duke was, in India, the Peninsula, Belgium, and France, in paying for all he got and how particular in arranging for the presence of responsible officers, provided with money, on the spot where supplies were obtained. This is our practice still, but this has not been the practice always with continental Powers, who have not respected private property and have made the invaded country's support war. According to an official report presented to the French Assembly in 1872, the Germans made, over and above direct and indirect taxes, the following requisitions—neglect requisitions, about £13,000,000; property seized by direct requisition, about £11,000,000; property injured by seizure, about £16,000,000; a total of about £40,000,000, to which we may add the war indemnity of £2,000,000. Sir Benjamin Walker says, that it was not till the 8th October 1870, that the Germans began to pay for anything at all, and they altered the practice in consequence of this reservation on the subject to the Crown Prince of Prussia, to whom it was attached. An international agreement on this subject might, it seems, serve to mitigate the hardships of war, at least in events as far as it affects private persons and private property on land.

A sweeping proposal has been made to allow war, even if that all disputes be referred to an international tribunal—an ideal arrangement which is open to the following objections.—*First*—It is an innovation of the courts of justice established in every country, but it would lack the force necessary to back its decisions, the force in the end being the only thing that causes the decisions of a court of justice to run. We may

here remark that the Behring States Fishery award, which was given against the United States and in our favour, has not yet been paid. *Secondly*—As certain litigants are known in courts of law to be unpopular, so we are considered among nations, and besides we are known to be wealthy and well able to bear the burden of a money award better than any other community. *Thirdly*—The tribunal could not always be satisfactorily constituted. *Fourthly*—Its jurisdiction would not be continuous; it would be formed for the single occasion, and its members would not regard their opinion as a precedent, nor would they have regard to the law of nations as a whole. *Fifthly*—There is no such thing as a settled code of international law, as for instance in the Geneva arbitration between us and America, the disputants began by arguing with the arbitrators that they should have regard to a principle which one of them did not admit to be included in international law.

We have lately seen an adaptation of this proposal applied to our dispute with Venezuela. We admitted the right of the United States to intervene in the matter, and have consented to the appointment of a tribunal of two American and two British arbitrators, who may select any English-speaking man as a fifth member, and if they cannot agree as to their choice, the King of Sweden is to be appointed. But the general treaty of arbitration, for the establishment of a permanent tribunal, to which all disputed questions arising between the two English-speaking peoples shall be referred, has been killed, for the time being, by amendments in the American Senate. Let us hope that this method of settling our family differences may not be long deferred, however long we may have to wait for the establishment, in other regions of the world, of the period when—

“The war drum throbs no longer and the battle flags are furled.”

THE ORGANISATION AND TRAINING OF SCOUTS.

BY CAPTAIN R. G. BURTON, 1ST INFANTRY, HYDERABAD
CONTINGENT.

Lately, in reading an account of the campaign against the Mohmands, I observed a remark that the want of specially trained scouts had been much felt. It has always been a matter of surprise to me that we have not an establishment of trained scouts in our regiments, seeing that India offers such facilities for their training, and that their utility is undoubted in all the operations of war, especially in frontier expeditions in difficult and mountainous country.

In some continental armies, and more especially in the Russian army, the value of trained scouts has long been recognised, and their utility has been proved, in more than one campaign, to the success of which they have contributed.

At present the men we employ on reconnoissances, on the advanced parties of advanced guards, in patrols, on outpost duties, and as scouts preceding and covering the flanks of a force in the vicinity of an enemy, are taken primarily from the ranks.

How much better would it be if the men employed on these duties were specially selected and carefully trained. In fact, the advantages of having such a body of men, chosen for their physical and moral qualities, and trained for the special services required of them, are so obvious that it is scarcely necessary to discuss them.

The writer of this article has, for some time, studied the system of trained scouts, called *ekhetniki*, obtaining in the Russian army; and it appears that, in inaugurating such a body of men, we could not do better than follow generally the Russian plan, and select and train our scout on the same lines as the *ekhetnik*, for in Russia the system has long been carried out, and the scouts were called into existence in the campaigns on the Caucasus, where the conditions of warfare much resembled those on the north-west frontier of India. The term scout is perhaps scarcely comprehensive enough in view of the multifarious duties of the men, and the varied services on which they

would be employed in time of war ; but in the absence of a better term, it might be employed, and would in time attain a wider meaning than it has at present. A short outline of the history of the Russian *okhotniki* may serve to illustrate the use and duties of these scouts.

The *okhotniki* have long existed in the army of the Caucasus, but it was only in 1886 that they were regularly organised throughout the Russian army, when special measures were taken, and regulations issued for their instruction. The authorised establishment of these scouts was at first fixed at 64 men per regiment of four battalions, that is, four men per company ; but in 1892 the number was raised to eight per company, who are placed for training under a selected officer. These men live with their companies, and are assembled twice a week for special training. They are fully instructed as scouts, and their training is intended to fit them to perform their duties as the eyes and ears of the army, and to undertake dangerous enterprises of partisan warfare or detached operations. A most important part of their training consists in annual expeditions in pursuit of wild beasts, and during these excursions, military exercises are also undertaken. The men are especially selected from the most intelligent soldiers, possessed of good physique, and commanding those qualities, both physical and mental, which render them suitable for bold and dangerous enterprises.

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In the "Caucasian Magazine" (No. IX, 1885), Colonel Schelkacheff, who commanded the *okhotniki* of the Kabardinski regiment in 1862, relates as follows:—

"In 1862 the *okhotniki* detachment of the Kabardinski regiment consisted of 70 men. They wore Asiatic costumes, and beards, and shaved their heads, and, as far as possible, adopted all the manners and customs of the mountaineers ; of which accomplishments they naturally only availed themselves when necessary. All these outward signs used to deceive the mountaineers themselves, and they not infrequently mistook the scouts for their own comrades, so that the Russians were frequently able to escape from the most difficult situations. They were armed with double-barrelled rifles, and were all

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In the last Russo-Turkish war, some commanders of regiments, on their own initiative, formed bodies of scouts whose services were of the greatest assistance to the regular troops. At the second siege of Kars, bands of *albatuk* were raised for the purpose of acquiring a knowledge of the locality and harassing the Turks by constant alarms. These men courageously bore out the hopes centred in them. By their frequent attacks on the Turkish outposts they wearied the vigilance of the enemy; so that one night, when the Turkish sentries observed a few men to their front, they took them for the hostile scouts, making their customary observations, and did not direct sufficient attention to their movements. But this time the wait had come indeed, for the screen of *albatuk* covered the advance of the storming columns, and the attack was so sudden that at some points the Turks did not even succeed in opening fire before the enemy was on the breastworks. Thus fell an almost impregnable fortress with a garrison of 30,000 men and 30 guns; and to its downfall the operations of the Russian scouts contributed in no small measure.

I have dwelt thus long on the subject of the scouts of a former army, in order to illustrate from actual history the value of this mode of warfare. The next point will be to indicate the physical and mental qualities to be sought for in selecting such men for our own service. There are probably in most of our infantry regiments, both British and native, a sufficiency of officers and men suitable for employment as scouts. No doubt, one officer per regiment would be sufficient to undertake the training of the requisite number of men, and he should be chosen for his personal and mental qualities, the selection of men being made on the same principle. The necessary physical qualifications are a strong physique, active habits, good

sight and hearing, and a constitution able to stand the vicissitudes of arduous services. All these qualities would be improved by subsequent training; and so, in some measure, would the necessary mental attributes of intelligence, a determined character, boldness, fearlessness, and self-confidence so necessary in a scout; whilst a knowledge of the language of the country, in which the men are likely to operate, would be of special use.

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The decision of this question is a matter of some difficulty, as there is much to be said on both sides, and it could probably only be determined by experience. In Russian literature, the majority of writers on this subject (and a voluminous literature is before me) appear to favour the organization of the scouts in a separate detachment, for reasons of command, of training, and of esprit-de-corps; all excellent reasons, yet the advisability of the adoption of this arrangement is somewhat doubtful, and many reasons might be adduced in favour of retaining the scouts with companies. When so retained, each company would have its complement of trained scouts, who could be assembled with those of other companies under the scout commander, when necessary, for training—say two days in the week—and for an expedition for two or more months at a suitable season of the year. They would thus not lose touch

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with their companies, whilst in their assembly for training and on expeditions they would soon get to know each other, and a spirit of comradeship would be fostered. On active service their employment, separately or with their companies, would of course, be determined by circumstances of the moment, connected with the duties they were required to perform. It does not appear necessary to dilate further on this subject of organisation, as in the present paper my object is merely to urge the advisability of establishing a body of trained scouts, and not to formulate details for their organisation and conduct.

Here the question would arise as to whether uniformity should be sacrificed in order to arm the scouts more suitably. If they were maintained as a separate body, apart from companies, there would be less objection than otherwise to their being differently armed and equipped from the remainder of the battalion. It would, perhaps, be better that they should be armed with lighter weapons, say, carbines, and they might also carry pistols. As regards clothing, a green chevron, or other distinctive badge, would be appropriate. A few guns per regiment might be allowed for use of the scouts in time of peace, but these would scarcely come under the heading of equipment, and could be provided regimentally. A small increase of pay should also be allowed, both in consideration of the special services of the men, and to make up for the extra wear and tear of their clothing.

The training of the scouts would, of course, be in accordance with the special duties required of them in time of war. Reconnaissance, patrolling, as guides and leaders in night-attacks and forlorn hopes, as guerillas to carry out special enterprises of partisan warfare. Attention should first be paid to their physical development; gymnastics, the use of arms, swimming, and the passage of obstacles. Then the tactics of their special duties of reconnoitring, etc., topography, including the use of the compass and reading of maps, signalling, demolitions, etc., special attention being directed to night operations.

It may be contended that our soldiers are already taught most of these things; but the instruction is, in general, superficial, and there is not at present sufficient leisure to give them a thorough training in those subjects most useful to them as scouts. In order to accomplish their extra work, it would be necessary to relieve them from many ordinary guard and other duties, and assemble them under their commander for special training at least twice a week.

In the Russian army, particular attention is paid to the training of their scouts in marching and in the hunting of wild beasts ; and for this purpose, the *okhotniki* go on a prolonged expedition once a year in pursuit of wild animals, whilst reconnoitring and other duties are carried on on the march. These organized hunting expeditions constitute, perhaps, the most important part of the training of the scout.

In order to guard against night-attacks and predatory incursions and ambushes, such as are undertaken by the tribes on our north-west frontier, the scouts by their training should be bold and untiring, and inured to hardship, and should possess those qualities of decision and appreciation of local conditions of ground and circumstance as are induced by the habits of the hunter of wild beasts. Therefore there can be no better training than that afforded by organized expeditions in pursuit of big game, combined with military exercises, which could be carried out on the march.

On these excursions the men would acquire the habit of shifting for themselves, and would learn all the expedients of camp-life ; whilst a genuine spirit of comradeship would be established during the chase, or when assembled in the evening to discuss the past day's adventures, or the next day's prospects.

For such expeditions India offers peculiar facilities, abounding as it does in wild animals and varied country, whether amid the snows of the Himalayas, on the rugged mountains of the north-west frontier, or the burning plains and highlands of Southern and Central India, the scout would encounter danger and learn to be indifferent to it ; he would become accustomed to take his rifle in one hand and his life in the other, and to look death in the face without flinching ; whilst hard work and exposure would inure him to the vicissitudes of campaigning, give him an eye for country and a facility for overcoming obstacles and despising difficulties, and acquaint him with the inhabitants and the country over which he ranged.

I might dilate much more on this subject of the establishment of scouts, but have merely sketched a general outline of the system proposed, the details of which could easily be filled in after the adoption of the scheme.

BRITISH OFFICERS IN NATIVE INFANTRY REGIMENTS.

BY CAPTAIN R. W. FALCON, 4TH SIKHS.

That the number of British officers with native infantry regiments requires to be increased will be readily admitted, but how this increase is to be managed is a problem somewhat difficult of solution.

In an article on this subject in a recent number of the Journal, Major A. W. T. Radcliffe, 14th Sikhs, has put the number of British officers required at twelve: with this as a minimum I concur, but the writer has not pointed out the rock on which every effort to officer the native infantry must split; this rock is the eight-company battalion, for, even with twelve officers, we should have only one to each company, and no reserve on the spot.

The organization of the cavalry is far better, for here we have two British officers to a squadron. Divide the battalion likewise into four companies, and we have two officers to a company.

It is true that the four-company battalion was originally established in the Prussian army on economical grounds, but it has since been found to work well, and is now maintained on tactical grounds, and has been copied by every other army in Europe, except our own. Its fitness is based on two principles—

1st.—That one-fourth of a battalion is the least number of men that can be made an effective tactical unit.

2nd.—That *four* is the right number of units for one officer to control.

Napoleon considered that no man could effectually control more than five subordinates, and in every army we find that, from the army command down to the company, the units under any one officer's command do not exceed four or five. The only exception is in our own army in the case of the battalion commander, who is expected to control *eight* units.

The eight-company battalion is a remnant of the times when the battalion was the lowest tactical unit, and the company merely an administrative sub-unit.

There is one argument which deserves notice in favour of the eight-company battalion for our army. In foreign armies

the "corps" under one commanding officer is the *regiment* of three or four battalions—a body able to form its own second line in an attack. The British army is tactically an army of *battalions*, and to obtain the same unity of leadership in the assault with us, it is necessary to divide a battalion between the first and second line, in which case the number of subordinates, under the commanding officer, is reduced to four, or at most five (treating the half battalion in second line as one unit). On the other hand, there are grave objections to thus splitting up our already weak battalions, and in our drill book it is clearly implied that whole battalions are to be put in first or second line. Once admit this, and there is no longer any question as to the advantage of the four-company battalion.

With the present organization of the native infantry, it is impossible to make the company the British officer's unit; a higher unit had to be found, and the clumsy wing command is the result.

As long as the British army clings to the small company, it would not be advisable to introduce the large one into the native army, for we should then have to use the same word for both a fourth and an eighth of a battalion. The only solution then is to adopt a double-company organization as was done by Colonel E. G. Barrow in the case of the Hong Kong regiment, and to make this the British officer's command.

British officers could then be allotted to native regiments as follows:—

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The native officers could be left as they now stand. Thus, the British officer's command would be the double company—

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There might be some financial difficulties in giving twelve British officers to every native battalion. If these could not be otherwise overcome, it would be better to reduce the number of battalions and to increase the strength of the remainder. A battalion of 1,200 men does not require more officers than one of 800.

A further reserve to the twelve officers is afforded by the grouping system, supposing only one battalion of a group to be on active service at a time.

There is one favorite argument for the small company for the British army, that it is convenient for our frequent detachments. This argument, based on administrative grounds only, will not, however, bear looking into. In practice, the ordinary detachment is *two companies*; detachments of one company are the exception, not the rule. One company of 200 men is a far handier unit than two companies of 100 men each, the commander of one being commanding officer of both. Moreover, it is to be observed that, when a one-company detachment is wanted, after deducting all the men who cannot be spared from head-quarters, the company has generally to be "made up" to 100 men from another company. From a company of one-fourth of a battalion, 100 men could be always detached, and the rest continue to form a separate section at head-quarters under an officer of its own. Much "transferring" would thus be avoided. The big company would thus be not less, but more, suitable for detached duty than the small one.

Another disadvantage of the small company is that it prevents decentralization. It must often happen that a company is commanded by a young and inexperienced officer who cannot be allowed entire control, and thus the real company system cannot be carried out. With only four companies, on the other hand, an efficient officer would always be available, and the company could be made an effective administrative unit under the company commander who would have the same responsibility for his company that the squadron commander has now for his squadron.

Thus, one of the difficulties that beset army organization in India can be got over by the simple expedient of copying what has been found advantageous on both administrative and tactical grounds in every army on the continent of Europe, and in doing this the Indian would be giving a good "lead" to the British army.

CONCERNING COMMANDERS.

BY CAPTAIN D. M. BOWER, I.S.C.

"If it is Villeroy, who is to command, I will beat him; if it is Vendôme, we shall have a hard struggle; but if it is Catinat, I shall be beaten."—(*Prince Eugène.*)

In attempting to write an article on the above subject, I find two serious difficulties meet me at the outset. In the first place, it is impossible to treat the subject thoroughly in the necessarily limited space allowed in a journal; and, secondly, the question is such a complicated one as to require, on the part of the writer, a profound knowledge of the military art. For these reasons, I shall only attempt to write on what concerns commanders.

I think that the importance of the subject can hardly be overrated, as the ability of the commander may be regarded as the chief condition of victory. History clearly proves this. The Macedonians were victorious over enemies tenfold their strength, but there is no doubt they would have succumbed had another than Alexander been in command of the army. Hannibal taught the Carthaginians for a certain period to vanquish the first military people of the world. Only a Cæsar's genius could triumph at Alesia, Pharsalia, and Alexandria. Frederick withstood the world, when the trained soldiers, with which he first took the field, had long since lain dead on the battlefields, or were lying wounded in the hospitals, and he was compelled to take all whom he could by any means summon round his hard-pressed standards. The French of Rossbach marched victorious through Europe when led by a Napoleon.

The above statement reminds us of the fact that, although the work of war is so plain and simple in its effects, yet it can never be conducted with distinguished success by people without distinguished powers of the understanding. This applies not only to the commander of the army, but also to all officers who have to think for themselves, especially in these days of decentralization. Now, the question naturally arises, does the life officers lead in peace tend to intellectual advancement? I think it may be safely

good marksmen, and, under favourable circumstances, their enterprises were almost always crowned with success."

Colonel Scheikachoff gives some striking examples of the boldness and enterprise of these guerilla warriors. They were brave men who, being well acquainted with the language of the mountaineers, penetrated far into their fastnesses among the hills, obtained information as to what was going on there, and gained such a knowledge of the country that they were able to act as reliable guides. They were always ready for action, as in those days they lived together and were not scattered among companies as they are now.

In the last Russo Turkish war, some commanders of regiments, on their own initiative, formed bodies of scouts whose services were of the greatest assistance to the regular troops. At the second siege of Kars, bands of *elchibek* were raised for the purpose of acquiring a knowledge of the locality and harassing the Turks by constant alarms. These men entirely bore out the hopes centred in them. By their frequent attacks on the Turkish outposts they wearied the vigilance of the enemy; so that one night, when the Turkish sentries observed a few men to their front, they took them for the hostile scouts, making their customary observations, and did not direct sufficient attention to their movements. But this time the worst had come indeed, for the screen of *elchibek* covered the advance of the storming columns, and the attack was so sudden that at some points the Turks did not even succeed in opening fire before the enemy was on the breastworks. Thus fell an almost impregnable fortress with a garrison of 30000 men and 380 guns, and to its downfall the operations of the Russian scouts contributed in no small measure.

I have dwelt thus long on the subject of the scouts of a modern army, in order to illustrate from actual history the value in time of war. The next point will be to indicate the physical and mental qualities to be sought for in selecting such men in our own service. There are probably in most of our infantry regiments, both British and native, a small number of officers and men suitable for employment as scouts. No doubt, one of our perfunctory would be subject to the better the training of the requisite number of men, and he should be chosen for his physical and mental qualities, but no criterion being made on this score. The necessary physical qualifications are a strong physique, a well-developed

sight and hearing, and a constitution able to stand the vicissitudes of arduous services. All these qualities would be improved by subsequent training; and so, in some measure, would the necessary mental attributes of intelligence, a determined character, boldness, fearlessness, and self-confidence so necessary in a scout; whilst a knowledge of the language of the country, in which the men are likely to operate, would be of special use.

It is probable that most of these qualities would be found in men who are keen sportsmen,* hunters of big game among the officers, and presumably there would be no difficulty in finding such men also in the ranks of British regiments.

In native regiments, where there are Sikhs, Gurkhas, or Pathans, there are sure to be men naturally suited for scouts; and where there are no sepoys of suitable quality, recruits might be obtained from the above-mentioned races, or from the Bhil, Gond, Banjara, or other tribes whose habit of wild life in the jungles would fit them for service.

To commence with one officer per battalion and four men per company (including two non-commissioned officers per battalion) would probably be a sufficient establishment, which might be increased as opportunity offered or requirements necessitated. The principal question for consideration is whether these men should be retained in their companies, or organised as a separate body in excess of the establishment.

The decision of this question is a matter of some difficulty, as there is much to be said on both sides, and it could probably only be determined by experience. In Russian literature, the majority of writers on this subject (and a voluminous literature is before me) appear to favour the organization of the scouts in a separate detachment, for reasons of command, of training, and of esprit-de-corps; all excellent reasons, yet the advisability of the adoption of this arrangement is somewhat doubtful, and many reasons might be adduced in favour of retaining the scouts with companies. When so retained, each company would have its complement of trained scouts, who could be assembled with those of other companies under the scout commander, when necessary, for training—say two days in the week—and for an expedition for two or more months at a suitable season of the year. They would thus not lose touch

* We have no comprehensive word in the English language like *Shikari*, or *Chasseur*, which would be appropriate to my meaning.

with their companies, whilst in their assembly for training and on expeditions they would soon get to know each other, and a spirit of comradeship would be fostered. On active service their employment, separately or with their companies, would of course, be determined by circumstances of the moment, connected with the duties they were required to perform. It does not appear necessary to dilate further on this subject of organisation, as in the present paper my object is merely to urge the advisability of establishing a body of trained scouts, and not to formulate details for their organisation and conduct.

Here the question would arise as to whether uniformity should be sacrificed in order to arm the scouts more satisfactorily. If they were maintained as a separate body, apart from companies, there would be less objection than otherwise to their being differently armed and equipped from the remainder of the battalion. It would, perhaps, be better that they should be armed with lighter weapons, say, carbines, and they might also carry pistols. As regards clothing, a green chevron, or other distinctive badge, would be appropriate. A few guns per regiment might be allowed for use of the scouts in time of peace, but these would scarcely come under the heading of equipment and could be provided regimentally. A small increase of pay should also be allowed, both in consideration of the special services of the men, and to make up for the extra wear and tear of their clothing.

The training of the scouts would, of course, be in accordance with the special duties required of them in time of war. Reconnaissance, patrolling, as guides and leaders in night attacks and forlorn hopes, as guerrillas to carry out special enterprises of partisan warfare. Attention should first be paid to their physical development; gymnastics the use of arms, swimming and the passage of obstacles. Then the tactics of their special duties of reconnoitring, etc., topography, including the use of the compass and reading of maps, signalling, demotions, etc., special attention being directed to night operations.

It may be contended that our soldiers are already taught most of these things, but the instructions, in general, superficial, and there is not at present sufficient leisure to give them a thorough training in those subjects most useful to them as scouts. In order to accomplish their extra work, it would be necessary to relieve them from many ordinary guard and other duties, and assemble them under their commander for special training at least twice a week.

In the Russian army, particular attention is paid to the training of their scouts in marching and in the hunting of wild beasts; and for this purpose, the *okhotniki* go on a prolonged expedition once a year in pursuit of wild animals, whilst reconnoitring and other duties are carried on on the march. These organized hunting expeditions constitute, perhaps, the most important part of the training of the scout.

In order to guard against night-attacks and predatory incursions and ambushes, such as are undertaken by the tribes on our north-west frontier, the scouts by their training should be bold and untiring, and inured to hardship, and should possess those qualities of decision and appreciation of local conditions of ground and circumstance as are induced by the habits of the hunter of wild beasts. Therefore there can be no better training than that afforded by organized expeditions in pursuit of big game, combined with military exercises, which could be carried out on the march.

On these excursions the men would acquire the habit of shifting for themselves, and would learn all the expedients of camp-life; whilst a genuine spirit of comradeship would be established during the chase, or when assembled in the evening to discuss the past day's adventures, or the next day's prospects.

For such expeditions India offers peculiar facilities, abounding as it does in wild animals and varied country, whether amid the snows of the Himalayas, on the rugged mountains of the north-west frontier, or the burning plains and highlands of Southern and Central India, the scout would encounter danger and learn to be indifferent to it; he would become accustomed to take his rifle in one hand and his life in the other, and to look death in the face without flinching; whilst hard work and exposure would inure him to the vicissitudes of campaigning, give him an eye for country and a facility for overcoming obstacles and despising difficulties, and acquaint him with the inhabitants and the country over which he ranged.

I might dilate much more on this subject of the establishment of scouts, but have merely sketched a general outline of the system proposed, the details of which could easily be filled in after the adoption of the scheme.

BRITISH OFFICERS IN NATIVE INFANTRY REGIMENTS

BY CAPTAIN R. W. FALCON, 4TH SIKHS.

That the number of British officers with native infantry regiments requires to be increased will be readily admitted, but how this increase is to be managed is a problem somewhat difficult of solution.

In an article on this subject in a recent number of the *Journal*, Major A. W. T. Radcliffe, 14th Sikhs, has put the number of British officers required at twelve; with this as a minimum I concur, but the writer has not pointed out the rock on which every effort to officer the native infantry must split; this rock is the eight-company battalion, for, even with twelve officers, we should have only one to each company, and no reserve on the spot.

The organization of the cavalry is far better, for here we have two British officers to a squadron. Divide the battalion likewise into four companies, and we have two officers to a company.

It is true that the four-company battalion was originally established in the Prussian army on economical grounds, but it has since been found to work well, and is now maintained on tactical grounds, and has been copied by every other army in Europe, except our own. Its fitness is based on two principles—

1st.—That one-fourth of a battalion is the least number of men that can be made an effective tactical unit.

2nd.—That *four* is the right number of units for one officer to control.

Napoleon considered that no man could effectively control more than five subordinates, and in every army we find that, from the army command down to the company, the units under any one officer's command do not exceed four or five. The only exception is in our own army in the case of the battalion commander, who is expected to control *eight* units.

The eight-company battalion is a remnant of the times when the battalion was the lowest tactical unit, and the company merely an administrative sub-unit.

There is one argument which deserves notice in favour of the eight-company battalion for our army. In foreign armies

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With the present organization of the native infantry, it is impossible to make the company the British officer's unit; a higher unit had to be found, and the clumsy wing command is the result.

As long as the British army clings to the small company, it would not be advisable to introduce the large one into the native army, for we should then have to use the same word for both a fourth and an eighth of a battalion. The only solution then is to adopt a double-company organization as was done by Colonel E. G. Barrow in the case of the Hong Kong regiment, and to make this the British officer's command.

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The above statement reminds us of the fact that, although the work of war is so plain and simple in its effects, yet it can never be conducted with distinguished success by people without distinguished powers of the understanding. This applies not only to the commander of the army, but also to all officers who have to think for themselves, especially in these days of decentralization. Now, the question naturally arises, does the life officers lead in peace tend to intellectual advancement? I think it may be safely

said that the answer is distinctly in the negative. The chief reason of this lies in the fact that—

"The intellectual advancement of the officers of every army is confronted by a peculiar difficulty. The foundations of all military institutions are authority and obedience—principles which appear to be directly opposed to the free movement of intelligence. Every army is constantly in danger of decay from mental stagnation. Free criticism is liable to undermine discipline, and the habit of unconditional obedience too often destroys the independence of judgment, without which moral and intellectual progress is impossible. The Prussian General Staff has escaped from this dilemma by taking the lead in scientific progress and organising itself in regard to all that concerns the business of national defence as an institution for the advancement of learning. It has been clearly proved that, in the war of 1870-71 the German armies or army corps were admirably handled by the General Staff, or officers who had been trained in that school; but, when brought face to face with the enemy on the battlefield, very nearly lost the game owing to the incapacity of their Divisional and Brigadier-Generals. This was due more to the system than to the men. "They were," says Hœnig, "infantry generals trained in the tomfooleries of the drill-ground only."

Not only must the power of comprehension be developed, but the character must also be strengthened.

Character.

The best way of accomplishing the latter end is to load the individual with responsibility. This is nowhere better carried out than in our navy at the present time, where midshipmen are forced to assume responsibility when performing their boat duties. In the army, unfortunately, we have nothing analogous to this, which makes our naval officers so good and so self-reliant. It is on account of the value the Prussian School attach to character that the student in studying military history is required not "merely to make himself acquainted with the facts of a campaign. He is in every case expected to form a definite conclusion as to what ought to have been done. He must clearly make up his mind what course he would have adopted in the circumstances which confronted the general whose operations he is studying." This is undoubtedly the true method of teaching the general's art; but, of course, it holds good for all officers, for it cannot be too often repeated that war presents a constant succession of problems to be solved, not only by the superior leaders, but by every officer in command of troops, no matter how small his charge may be.

We are now brought to the question of the value of the war game as a means of training officers.

War game.

To be of use, of course, it must be carried out under skilful guidance. One can easily imagine that, when it is conducted on wrong principles, it will do more harm than good. If rightly carried out, however, it will improve an officer's tactical fitness enormously. Its principal advantage is the practice which it affords in deciding what ought to be done in a given situation. It is not enough for an officer, when he finds himself in the field, that he should have his head full of what is called valuable information, he has to make up his mind what orders he will give, and the more he runs through in his head the doctrines laid down in text books on tactics, the more he will find himself embarrassed as was Von Verdy deVernois, for instance, when he found himself in a difficult situation at Nachod. Sufficient practice in the war game, however, will teach an officer to form decisions with ease as it trains the judgment, and, above all, teaches a man to keep cool while another is working against him.

In dealing with the subject of character, a short reference to that grand quality, the courage of responsibility, may be found interesting as it is possessed in so marked a degree by great leaders whether in politics or war. I will illustrate further on those under the latter category; as regards those under the former, Lord Chatham affords a very good example. On one occasion he was going out of the House of Commons, and as one of the speakers against him concluded his speech by emphatically urging what he, perhaps, rightly thought the unanswerable question—"where can we find the means to support such a war?" Lord Chatham turned round a moment and gaily remarked "gentle shepherd tell me where?"

This magnanimous quality may be generated in the school of life, especially by trials, for they purify a well-framed character, they teach it to think little of earthly weal or woe, to gaze dauntlessly into the face of possibility, to suffer fresh disaster; this quality teaches men to bear the blame of guilt when innocent, and to fall a victim to the damning sentence of the crowd. The feeling that all that is required is to be able to use properly the materials given, and then almost to fight with misfortune steels self-confidence. History affords no better example of the value of this quality than the glorious struggle against overpowering odds made by General Lee

in the cause of the Confederacy. The very essence of modern war was comprised in his four years' campaign, which demanded a greater tax upon the mental and physical qualifications of a leader than the fifteen years of Hannibal's wars in the remote past. The masterly manner in which Sir John Moore conducted his retreat before the French, which terminated in the battle of Corunna, affords another fine illustration of the value of this quality. Napier, in eloquent language, which, although so well known, I cannot resist quoting, has described him, thus: "With a firm heart accepting that gift of a severe fate, and, confiding in the strength of his genius, disregarded the clamours of presumptuous ignorance; opposing sound military views to the foolish projects so insolently thrust upon him by the Ambassador, he conducted a long and arduous retreat, with sagacity, intelligence, and fortitude. No insult could disturb, no falsehood deceive him, no remonstrance shake his determination; fortune frowned without subduing his constancy; death struck, and the spirit of the man remained unbroken when his shattered body scarcely afforded it a habitation."

Perhaps one of the next most important parts of an officer's mental equipment is presence of mind.

Presence of mind. It is partly born in man, but we may safely say there is no quality which is so open to be acquired. It can hardly be possessed by an unprepared or ignorant man. It is this quality, coupled with an iron will, which can change defeat to victory. Men of strong will, advancing through life with an internal invincible determination, have seemed to make the train of circumstances, whatever they were, conduce as much to their chief designs as if they had by some directing interposition been brought about on purpose. It is wonderful how even the casualties of life seem to bow to a spirit that will not bow to them, and yield to subserve a design which they may, in their first apparent tendency, threaten to frustrate.

Lord Wolseley, in an article on General Forrest, gives a striking illustration of the truth of the above:—"When in the skirmish line one day—his usual place in action—two messengers from the rear came galloping towards him in hot haste hollering out: 'General Stanley has cut in behind you, has captured the Rear-guard Battery and many prisoners, and has got into General Armstrong's rear.' Equal to the occasion, and determined to prevent this bad news influencing those around him, Forrest at once shouted out in the same tone: 'You say he is in Armstrong's rear. That's whar I have been trying to get him all day, d— him. I'll be in his rear in about

five minutes ! Face your line about Armstrong : push forward your skirmish line, crowd 'em both ways, I'll go to the Rear Brigade, and you'll hear from me thar directly' ! With that he galloped off at the head of his Body-guard, and before many minutes had elapsed they heard the well known confederate yell with which he always charged. He took the battery and prisoners, capturing in his turn many from the enemy. To this day there is not a private soldier who was present, who does not believe that General Stanley fell into a trap which Forrest had deliberately laid for him. Forrest afterwards admitted that at the time he thought his whole command was ' gone up.' "

It has been truly said of this extraordinary leader that—
 "Panic and fear flew and hid at his approach, and the sound of his cheer gave courage to the weakest heart. There was a fascination about him which electrified the daring, and caused them to gather round this dauntless spirit, especially when a fight was imminent. On the eve of an engagement, men from hospital, or just exchanged as prisoners of war, would hurry to report themselves to him for duty. These men had no arms, so Forrest would say to them : ' You just follow along here, we'll have a fight presently, and then you can get plenty of guns and ammunition from the Yankees.' "

Blucher, on one occasion, showed an equally good example of coolness to the above. When suddenly informed that Napoleon had cut in on his rear far from being in the least disconcerted, he merely made use of an expression which is too coarse for repetition.

I now propose to deal shortly with the power of determination, as its importance can hardly be over-estimated. An officer, who lacks this quality, will never accomplish anything great, no matter what his ability may be. In discussing the subject, Clausewitz says that—"In war we should not despair of success up to the last moment, as the effect of good principles, which can never manifest themselves in such a regular manner as we suppose, will unexpectedly make their appearance, even in the most desperate cases, when we believe any such influences are completely lost."

"In the case of Cæsar, for instance, what few men—not soldiers—can realize is that quality which he showed, when defeated, by no fault of his own, at Dyrrachium, or when, almost all the world had deserted him, because of his apparent failure in Spain, he changed the history of the world by his

calm facing of misfortune. A man must almost have stood in the position of the general who suddenly sees before him the probability of failure to realize the strain that Cæsar must have undergone, and the greatness of the mind that, unaffected by fate or chance, could, in such circumstances, lift the feelings of a whole army from discouragement and despair to victory giving enthusiasm."

Although the above is a very remarkable case of unconquerable determination, still it must be remembered that brilliant examples of the same are always before us in peace which hath its victories as well as war, as in the heroic manner, for instance, in which General Grant always presented an unbroken front to continued trials and difficulties. Shortly before the commencement of the Civil War, he was a needy man, lounging in the streets of St. Louis, with scarce a hope or friend in the world. He had left an honourable profession under a cloud, after trying his hand at the natural pursuit of farming, which had brought him in much toil and little gain, had turned in vain to other pursuits. As a dealer in wool, as agent for collecting debts, as an auctioneer, as a house-agent, he had failed to compete successfully with the sharper or better trained minds around him, and now what he had regarded as his last chance, his application for a petty local appointment had been rejected curtly, with the intimation that fit testimonials were lacking in his case. To this *ex*-captain, bankrupt in fortune, name and hope, some demon may be imagined whispering : " Why struggle any more against fate ? The world has no place for you, or such as you. Your chances have slipped away from you. Your acquaintances slink away lest they should hear of your needs. Give up this useless effort to recover yourself and cast yourself away." On the other hand, his better angel intervening may have urged him to good courage, reminding him that he had been known in the distant plains of Mexico for distinguished gallantry and conduct, and that the name there gained was not yet wholly lost ; and that in the seemingly money-seeking country, in which his fortune lay, there were hid the elements of deadly strife, soon possibly to break out, where the soldierly qualities within him would shine forth, and place him as high above more commonplace men in fame and fortune as he now seemed hopelessly beneath them.

Confidence in Leaders.

It will be often observed how readily ill-temper or satisfaction shown in the highest places communicates itself to the

troops. A commander, who has not well studied the military art, is just as liable to weaken the bonds of discipline by ignorance as he is to muddle over any problems that war may present. Take the case, for example, of unnecessarily worrying orders : Can anything be really worse ? They are fatal to discipline, men get fretted by little trivialities being made into matters of importance. Soldiers are not children, and they get irritated by fussiness, even if the object be their own comfort and advantage. No leader need hope to obtain much power over his troops, who does not realize the value of the golden rule "pas trop gouverner."

On the other hand, it can be readily noticed how, from the brilliant interior, there always falls a beam
 General Von Gœben. on the troops without. An excellent proof of this is afforded by the conduct of Von Gœben at Gravelotte when loaded with responsibility that would have weighed very heavily on the shoulders of many able leaders. "His whole bearing was quiet and equable, and his appearance in accordance with his strength. He sat in the saddle, with his tall figure bowed forward, with his shoulders a little drawn up, and with his head stretched forward, while through his spectacles showed two wise eyes, which shone at times when a moment of tension arrived. The officers of the other staffs watched Gœben's actions, as if they felt this indeed was the man. Hardly a word was spoken ; with his glance steadily directed on the enemy, he sat there like a bronze statue—a sure support both in soul and brains in any severe work. A word quietly spoken to this or that general, or to a staff officer or an adjutant, a calm nod when he received a report in this manner and without fuss, he did all that a general could do under the circumstances, with a degree of certainty, of sequence, and of quiet that, in spite of the difficult situation of the struggle, gave all around him a feeling of security, which was transmitted, as if by electricity, to every private. We know well what this can be, but we do not know how it comes about ! A general can inspire confidence where a fool may be the cause of panic. Gœben only once turned his eyes to the rear at the moment of the arrival of the 16th Division, and only once left his place (when the king approached his right flank) up to the moment when he, at a later period, rode over to St. Hubert ; in this he judged that in such cases, to act thus, was the part of a true general." He clearly showed that he possessed a strong mind, that is to say, not such as alone is capable of strong

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emotions, but such as preserves its equilibrium when worked upon by strong emotions, so that, in spite of the storms in the breast, the understanding and conviction keep their place like the needle of the compass in the tempest-tossed ship.

As contrast is the soul of narration, it may be deemed instructive to take a view of the bearing of General Von Steinmitz. Von Steinmitz when placed in circumstances similar to the above. How different was everything in his staff. "When gloomy depression rests upon the face of the leader, when he says nothing, but betrays the conflict in his soul by his gestures and restless behaviour, when he incessantly tugs at and turns his horse, and remains silent for a long time, and, when he does speak, shows the agitation he suffers inwardly by the sharpness of his voice and accent, there can be in those around him no quiet and no courtesy, no feeling of confidence or of trust. Proof as he was against the advice of others, Steinmitz was as headstrong as he was vain. There was no harmony between him and his staff and no cheerful spontaneity; military absolutism weighed like lead on the best dispositions, and prevented all from delighting in their duty. General Steinmitz was engaged in two struggles: one against the enemy; the other, and that the fiercest, within himself. By reason of the continual contest within him, thinking that he stood between Scylla and Charybdis, and yet, perhaps, knowing what he ought to do, he actually wasted his strength in himself, with the result that he only did harm."

Such was the conduct of Von Steinmitz on the battlefield: when off it, he was continually issuing useless and harsh orders, which was, to all appearance, the effort of a weak man to display his authority. These orders naturally excited the disgust of the officers in his command who described them as childish.

In an exceedingly interesting article on Field Fortification Captain Maude expresses his opinion that—
 Types of leaders. "The essential difference between the genius and the man of average ability was and is that the former instinctively devotes his attention only to the points of vital importance, the other spreads his energies, without discrimination, over all alike; and, while one is steadily developing the fighting efficiency of the troops to the utmost, the other is wasting time in pigtails and powder, or their modern equivalents. The men, particularly the long service professional soldiers, have a very fine instinct in distinguishing between

the commander, who works them, so as to develop their fighting power to the best advantage, and the other who wastes their time in non-essentials, and they soon acquire a confidence in the former that the latter can never hope to attain. Hence the former can call on them for manœuvres and exertions which, to the other, would be impossible: and hence, when two such different leaders were opposed to one another, the genius could march round the other's flanks (exposing his own communications in doing so, of course), and roll up his line from end to end in a way the average general would not dare to attempt. Genius is not evinced in the mere conception of a turning movement, the average intelligence of a board school child would suffice for that; but genius is evinced by the man, who trains his troops, so that he can trust them to face risks which the average leader, in spite of character, feels instinctively his own men could not or would not face under his leadership. There are, therefore, three grades of leadership—the imbecile, who makes plans which his troops are not fit to execute; the good average general, who knows what he can and what he cannot demand from his men; and the genius, who trains his command and wins their confidence, so that in his hands, but in his hands alone, the impossible becomes possible."

I think that the following anecdote gives a good illustration of the first-mentioned stamp of leader, and enables us to realize how sound practical judgment may be annihilated by routine. When the head-quarters of the Prussian forces were at Erfurt every morning at 11 o'clock, the senior officers and adjutants assembled in front of the palace occupied by the king to receive the parole. On one occasion the king had gone to the house of the Duke of Brunswick, where several generals had been summoned to a conference which was prolonged beyond the time fixed for receiving the parole. Observing this, the king at once gave the parole to the Duke, who went into the street to communicate it to the officers. He noticed with alarm, however, the absence of the non-commissioned officer and four men, who were always placed as a guard round the officers receiving the parole, in order that no stranger might overhear it. This caused the greatest uneasiness to the Duke. As the king was at the window, he dare not send to the nearest post for the men he needed. But such fetish respect did he show for the regulations that his mind was unable to solve the difficulty, and give the parole without the guard being present.

The Duke ran here and there, undecided, complaining about his painful position, till some one proposed that he should make use of the two sentinels placed before the door. He immediately did this. But even then there were one non-commissioned officer and two men short. Again he became undecided.

At last, the goddess of war seemed to take pity on her worshipper. At that moment, the battalion bread wagons with a small escort passed down the street ; the officers immediately took this escort to supply the place of those who were absent. But, again, a further difficulty. The non-commissioned officer was not armed in accordance with the regulations, that is, with a short sword, as he had placed it in one of the wagons. It was necessary to obtain a special order from the Commander-in-Chief to take the sword from the wagon. After having triumphed over all these difficulties and lost a considerable amount of time, the Duke entered the ring formed by the officers and gave the long expected parole. That scene made a most painful impression on those present, as this was the man who had been selected to lead the Prussian forces against Napoleon.

It is really astonishing what an amount of mischief can be done by petty minds of the above stamp, especially if imbued with energy. There is no getting over the love of such minds for attaching great external and noisy importance to puerilities : in order to appear important, they prefer small details to great questions, and perpetually hinder great matters by meddling and muddling with rubbish. Happily, owing to the great strides made in education, such officers will, in the not very distant future, become extinct in the British army, as they are almost so in most others.

Conclusion.

It is, of course, almost impossible to form an opinion in
 Test of intrinsic value. peace of the intrinsic value of officers, for it must be remembered that this is one of the most difficult tasks that can be imposed on the human mind. Take, for instance, the highly essential question of character. It will be invariably noticed that strong characters are wont to display themselves in a manner that is more disadvantageous than profitable to their advancement in time of peace. Had it not been for the French Revolution, Bonaparte

and Carnot, in all probability, would have ended as lieutenant-colonels or colonels. Gellert has pointed out that the best gifts of all find the fewest admirers, and that most men mistake the good for the bad—a daily evil that nothing can prevent. Whatever be the form which excellence takes, mediocrity—the common lot of by far the greatest number—is leagued against it in a conspiracy to resist. The pass word of this league is “à bas le mérite.”

A man can really understand only those things which are of like nature to himself. The dull person will like what is dull, and the common what is common ; a man whose ideas are mixed will be attracted by confusion of thought ; and folly will appeal to him who has no brains at all. The sense of this passage is that we should not be surprised if people are pleased with themselves, and fancy that they are in good case ; for to a dog the best thing in the world is a dog ; to an ox, an ox ; to an ass, an ass, etc.

Limmerman is of opinion that :—“ It is not ordinary or common characters against whom the public hatred and disgust are excited. There is always something great in that man against whom the world exclaims, and at whom every one throws a stone.” I do not propose to discuss the above opinion of such a great authority, as to do so, would unduly prolong this article ; but a reference to the contemporary opinions, entertained of the undermentioned leaders, will indicate how much reliance is to be placed on peace criticism :—

Leaders.

Contemporary opinions.

Wellington ...

As a young officer considered a shallow saucy stripling, and pronounced almost unanimously, by the British public and the British army, a bad general after the Talavera campaign.

Napoleon ...

Considered a failure as a regimental officer, and very unfavourably reported on by his commanding officer when a lieutenant.

Nelson ...

Before Trafalgar, a popular clamour was raised against him on account of his failure to find

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| | | | the French fleet at Alexandria, and it has been pointed out that at that time there was a great risk of his being removed from the navy as an incompetent officer. |
| Lee | ... | ... | At the commencement of the American Civil War pronounced by the confederates their one mistaken choice. |
| " Stonewall " Jackson | | ... | In the early part of the civil war his strategy was far too brilliant to be appreciated by his critics, who sneered at him as a fool. |
| Frederick the Great | | ... | Had he not been born a prince, would have retired as a lieutenant. Adolph Schmidt has pointed out that, when Frederick held that rank, he was considered " an obstinate, malicious, effeminate, or weak-minded, good-for-nothing." |

This list could be prolonged *ad infinitum*, but it is deemed sufficient for the object intended. Equally absurd judgments were pronounced in peace on some of the most incompetent leaders ever placed in high commands—notably in the French army in 1870. It is a well established fact that in that army men rose to high positions by truckling to, and carrying favour with, their superiors and by petty meannesses in peace.

INDIAN VOLUNTEERS.

BY CAPTAIN H. A. IGGULDEN, DERBYSHIRE REGIMENT.

It would appear that until recently no branch of the army in India received less official attention than the volunteers; it seems to have been no man's child, and beyond spasmodic letters to the papers and occasional bursts of local energy, volunteer corps were left to look after themselves; and whether they were good, bad, or indifferent, depended almost entirely on their local surroundings.

Of late years, however, the volunteer forces in India, as well as elsewhere, have considerably gained in strength and somewhat in efficiency, and there are indications that they will be regarded by the Government in a more serious light than hitherto.

This is as it should be, as the importance of a really efficient volunteer force in a country like India can scarcely be over estimated, so much so, that the efficiency of the volunteers may be considered of equal importance to that of the native army. It is hardly necessary in this paper to point out the many and various reasons for maintaining a volunteer force in India; they have been constantly stated, and are so obvious as to need no repetition at my hands; and if there are still some who do not fully recognize the necessity and importance of an efficient auxiliary force in India, I am afraid only the call to arms that will come sooner or later will overcome their ignorance and indifference.

It will be generally allowed by those who know Indian volunteers best, and are capable of judging them from a professional point of view that there is still a very great deal of room for improvement, both in their efficiency, organization, and discipline; and in this paper I would endeavour to depict them as they are, to point out some of their weak points, to humbly suggest remedies, and to sketch out a sounder organization than that at present in force.

To begin with, volunteers in India are volunteers on a somewhat different footing to what they are in the United Kingdom. The chances of their being called on for active service are infinitely greater in this country than in England, or,

perhaps, any of her colonies. There is, therefore, much more reason for their existence and maintenance on a sound and efficient footing, ready at all times for any emergency they may be called on to meet. To have them in this satisfactory condition, should be the aim and object of every British subject in India desirous of maintaining the supremacy of the mother country and guarding her possessions against all aggressors.

There is little doubt that to solve this question satisfactorily, and to put the auxiliary forces in India on a really sound basis, the bearing of arms by all men of British extraction residing in India should be made compulsory by law. I am not sufficiently well versed in politics to know the reason why this is not already so; but, after nearly five years' experience as an adjutant of volunteers and a considerable intercourse with Indian civilians, I believe the almost universal consensus of opinion amongst them both, is that military service should be compulsory by law, and were the Government ever to introduce a compulsory service, few, if any, would object, or find it any hardship to undergo the small annual training that would be required of them.

Indeed, the greater portion of the volunteer force would gladly welcome the change, as putting every one on the same footing, and so perform their military duties in a more cheerful and a whole-hearted manner than they at present volunteer to do. The majority of the auxiliary forces in India being already semi-compulsorily so, the transition would not be great.

Compulsory service in the militia has been in force for many years in the oldest portion of the United Kingdom, namely, the Channel Islands, and has, I believe, worked satisfactorily and without friction, notwithstanding the attempts of political agitators from England to incite the Islanders against it. As an old officer in the Jersey Militia, some seventeen years ago, I can state that, although the discipline of that corps was not perfect, its organisation and efficiency was a good deal superior to that of volunteers, and the Island Militia could always be depended on to give a good account of themselves, particularly the artillery part of it, which was very good indeed.

It may be of interest to briefly here state what the terms of compulsory service in the Channel Islands are, as they appear to me to be generally suitable to what would be required in India should military service be made compulsory.

Every male in the Channel Islands, between the age of sixteen and sixty, has to serve in the militia.

Service consists of three categories—namely prefatory, active, and reserve service.

Prefatory service is the training of lads and recruits, with an annual attendance of not more than forty parades.

At the age of eighteen, or on being passed fit by the adjutant of the corps, the recruit is admitted into the active service, and has to serve in such for ten years' efficient service, or, should he desire it, he can voluntarily continue serving in the active service until the age of forty-five, when, unless an officer, non-commissioned officer, or bandsman, he must join the reserve. Active service involves an attendance of nine parades per annum, exclusive of musketry and ceremonial parades.

Service in the reserves consists of one annual attendance at parade until the age of sixty when further service is dispensed with.

There are certain exemptions from service, and any breach of the regulations is punishable, in the first instance, by fine, and afterwards by a court of law.

The compulsory service, extracted from a Channel Islander, is thus very much the same as what is now given by an Indian volunteer, and would probably be about what could be expected if service were made compulsory in this country. If, therefore, the Channel Islanders have recognized the great importance of a military training for their entire male population, close as they are to England and protected by a powerful navy, how much more ought Anglo-Indians and Eurasians to follow suit and train themselves to bear arms, and so combine to act collectively to protect their families and interests from molestation, and maintain their country's possession. Situated as they are in a conquered country, with the terrible lesson of the Indian mutiny ever before them, the growing discontent amongst certain classes of the native community, owing to over education and the unchecked and broadcast dissemination of sedition by them against the Government, and the no less probability that sooner or later the country will be denuded of British regular troops, occupied in serious frontier wars, or in repelling the attack of a foreign invader, when the maintenance of order and guardianship of the country will or should be almost entirely in the hands of the auxiliary forces.

It would be interesting to ascertain the exact feeling of the non-military European population of India, whether for or against compulsory service of a definite character; but taking into consideration the large increase in the number of volunteers

emotions, but such as preserves its equilibrium when worked upon by strong emotions, so that, in spite of the storms in the breast, the understanding and conviction keep their place like the needle of the compass in the tempest-tossed ship.

As contrast is the soul of narration, it may be deemed instructive to take a view of the bearing of General Von Steinmütz. Von Steinmütz when placed in circumstances similar to the above. How different was everything in his staff. "When gloomy depression rests upon the face of the leader, when he says nothing, but betrays the conflict in his soul by his gestures and restless behaviour, when he incessantly tugs at and turns his horse, and remains silent for a long time, and, when he does speak, shows the agitation he suffers inwardly by the sharpness of his voice and accent, there can be in those around him no quiet and no courtesy, no feeling of confidence or of trust. Proof as he was against the advice of others, Steinmütz was as headstrong as he was vain. There was no harmony between him and his staff and no cheerful spontaneity; military absolutism weighed like lead on the best dispositions, and prevented all from delighting in their duty. General Steinmütz was engaged in two struggles: one against the enemy; the other, and that the fiercest, within himself. By reason of the continual contest within him, thinking that he stood between Scylla and Charybdis, and yet, perhaps, knowing what he ought to do, he actually wasted his strength in himself, with the result that he only did harm."

Such was the conduct of Von Steinmütz on the battlefield: when off it, he was continually issuing useless and harsh orders, which was, to all appearance, the effort of a weak man to display his authority. These orders naturally excited the disgust of the officers in his command who described them as childish.

In an exceedingly interesting article on Field Fortification *Tyler & Co.* Captain Maule expresses his opinion that—"The essential difference between the genius and the man of average ability was and is that the former instinctively devotes his attention only to the points of vital importance, the other scatters his energies, without discrimination, over a whole, and, while one is steadily developing the fighting efficiency of the troops to the utmost, the other is wasting time in particulars which, or their modern equivalents, the men, perhaps, even the long-service professional soldiers, have a very fine instinct in distinguishing between

the commander, who works them, so as to develop their fighting power to the best advantage, and the other who wastes their time in non-essentials, and they soon acquire a confidence in the former that the latter can never hope to attain. Hence the former can call on them for manœuvres and exertions which, to the other, would be impossible: and hence, when two such different leaders were opposed to one another, the genius could march round the other's flanks (exposing his own communications in doing so, of course), and roll up his line from end to end in a way the average general would not dare to attempt. Genius is not evinced in the mere conception of a turning movement, the average intelligence of a board school child would suffice for that; but genius is evinced by the man, who trains his troops, so that he can trust them to face risks which the average leader, in spite of character, feels instinctively his own men could not or would not face under his leadership. There are, therefore, three grades of leadership—the imbecile, who makes plans which his troops are not fit to execute; the good average general, who knows what he can and what he cannot demand from his men; and the genius, who trains his command and wins their confidence, so that in his hands, but in his hands alone, the impossible becomes possible."

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It will be generally allowed by those who know Indian volunteers best, and are capable of judging them from a professional point of view that there is still a very great deal of room for improvement, both in their efficiency, organization, and discipline; and in this paper I would endeavour to depict them as they are, to point out some of their weak points, to humbly suggest remedies, and to sketch out a sounder organization than that at present in force.

To begin with, volunteers in India are volunteers on a somewhat different footing to what they are in the United Kingdom. The chances of their being called on for active service are infinitely greater in this country than in England, or,

perhaps, any of her colonies. There is, therefore, much more reason for their existence and maintenance on a sound and efficient footing, ready at all times for any emergency they may be called on to meet. To have them in this satisfactory condition, should be the aim and object of every British subject in India desirous of maintaining the supremacy of the mother country and guarding her possessions against all aggressors.

There is little doubt that to solve this question satisfactorily, and to put the auxiliary forces in India on a really sound basis, the bearing of arms by all men of British extraction residing in India should be made compulsory by law. I am not sufficiently well versed in politics to know the reason why this is not already so; but, after nearly five years' experience as an adjutant of volunteers and a considerable intercourse with Indian civilians, I believe the almost universal consensus of opinion amongst them both, is that military service should be compulsory by law, and were the Government ever to introduce a compulsory service, few, if any, would object, or find it any hardship to undergo the small annual training that would be required of them.

Indeed, the greater portion of the volunteer force would gladly welcome the change, as putting every one on the same footing, and so perform their military duties in a more cheerful and a whole-hearted manner than they at present volunteer to do. The majority of the auxiliary forces in India being already semi-compulsorily so, the transition would not be great.

Compulsory service in the militia has been in force for many years in the oldest portion of the United Kingdom, namely, the Channel Islands, and has, I believe, worked satisfactorily and without friction, notwithstanding the attempts of political agitators from England to incite the Islanders against it. As an old officer in the Jersey Militia, some seventeen years ago, I can state that, although the discipline of that corps was not perfect, its organisation and efficiency was a good deal superior to that of volunteers, and the Island Militia could always be depended on to give a good account of themselves, particularly the artillery part of it, which was very good indeed.

It may be of interest to briefly here state what the terms of compulsory service in the Channel Islands are, as they appear to me to be generally suitable to what would be required in India should military service be made compulsory.

Every male in the Channel Islands, between the age of sixteen and sixty, has to serve in the militia.

Service consists of three categories—namely prefatory, active, and reserve service.

Prefatory service is the training of lads and recruits, with an annual attendance of not more than forty parades.

At the age of eighteen, or on being passed fit by the adjutant of the corps, the recruit is admitted into the active service, and has to serve in such for ten years' efficient service, or, should he desire it, he can voluntarily continue serving in the active service until the age of forty-five, when, unless an officer, non-commissioned officer, or bandsman, he must join the reserve. Active service involves an attendance of nine parades per annum, exclusive of musketry and ceremonial parades.

Service in the reserves consists of one annual attendance at parade until the age of sixty when further service is dispensed with.

There are certain exemptions from service, and any breach of the regulations is punishable, in the first instance, by fine, and afterwards by a court of law.

The compulsory service, extracted from a Channel Islander, is thus very much the same as what is now given by an Indian volunteer, and would probably be about what could be expected if service were made compulsory in this country. If, therefore, the Channel Islanders have recognized the great importance of a military training for their entire male population, close as they are to England and protected by a powerful navy, how much more ought Anglo-Indians and Eurasians to follow suit and train themselves to bear arms, and so combine to act collectively to protect their families and interests from molestation, and maintain their country's possession. Situated as they are in a conquered country, with the terrible lesson of the Indian mutiny ever before them, the growing discontent amongst certain classes of the native community, owing to over education and the unchecked and broadcast dissemination of sedition by them against the Government, and the no less probability that sooner or later the country will be denuded of British regular troops, occupied in serious frontier wars, or in repelling the attack of a foreign invader, when the maintenance of order and guardianship of the country will or should be almost entirely in the hands of the auxiliary forces.

It would be interesting to ascertain the exact feeling of the non-military European population of India, whether for or against compulsory service of a definite character ; but taking into consideration the large increase in the number of volunteers

and the many expressions of opinion I have heard on the subject, I believe that the great majority of men would be in favour of it, and that the time has now arrived when military service in India with the auxiliary forces might, with propriety, be made compulsory by law.

Before proceeding to criticize the present organization of Indian volunteers, I will briefly trace their history up to the present time. Volunteers were first called into existence in this country by the Indian mutiny; and on 2nd July 1857 the European citizens of Madras enrolled themselves into a volunteer corps under the name of the Madras Volunteer Guards. Arms were served out to them, and were drilled collectively as soldiers. There were also at this time several other similar bodies of volunteers throughout India, who did excellent service during the mutiny and saw plenty of fighting; but, with the exception of the Madras Volunteer Guards, they were disbanded on the country quieting down. In 1860 the Nagpur Volunteers were raised, followed in 1861 by the 1st and 2nd Punjab Volunteers, in 1862 by the Polar Light Horse, and 1873 by the Calcutta Volunteers.

For the next five years volunteering seems to have been at a stand-still, for no fresh corps was formed until Bangalore again took up the movement in 1868.

The East Indian is the oldest railway corps, dating from 1869, followed at intervals by the formation of several other railway and provincial corps, until at the present time every place of importance throughout India has its volunteer corps or detachment, and new corps are still being spoken of.

The following is the present composition of the Indian volunteer forces, including Burma and the Andaman Isles, corrected up to the end of March 1897:—

| | REGIMENT. | STRENGTH. |
|---|-----------|-----------|
| 2 corps, Rawa volunteers | ... | 570 |
| 12 corps, Light Horse | ... | 1,792 |
| 6 corps, artillery | ... | 1,118 |
| 2 companies, engineers | ... | 118 |
| 3 corps and two companies, mounted rifles | ... | 772 |
| 37 corps, rifle volunteers | ... | 14,719 |
| 11 corps, railway volunteers | ... | 10,413 |
| 3 corps, reserve volunteers | ... | 1,099 |

Forming a total enrolled strength of 29,473 volunteers.

These are fairly satisfactory figures when it is considered that they represent the growth of the volunteer movement in India during forty years of practically uninterrupted internal

peace time ; and it is satisfactory to think that there are now so many civilians in India, who voluntarily give their time and services, often at great inconvenience and trouble, to acquiring a military training ; and by this most practical demonstration, patriotically recognize their duties to their country, and the great importance of preparing for emergencies, the certainty of the occurrence of which may be regarded as a matter of time only.

Before, however, congratulating ourselves too much on possessing a volunteer force of 29,433 men, it will be as well to look into the true state of affairs, and analyze its numbers, composition, and organization.

From statistics which I have collected from the different volunteer corps in India and Burma, and corrected to the end of March 1897, I find that out of the total 29,433 enrolled strength, 1,936 are returned as non-efficient, 3,743 are cadets, and 1,346 are reservists. This leaves 22,408 adult efficient volunteers, who could be reckoned on as available for service of some sort or another. Though, if we again deduct railway volunteers and others, who would be pretty well always tied down to their callings, there would, in all probability, be only about half that number.

Take, again, the efficiency of volunteers out of this 22,408 returned as efficient, there is undoubtedly a considerable percentage, who, for various reasons, could not be considered really so, and who would not be available for active service if called on.

To return to statistics, 18,366 volunteers, including cadets, out of the 29,433 enrolled, are returned as extra-efficients. These are volunteers who have fired an extra course of musketry, are fair shots, and who have probably attended considerably more than nine drills, which is the minimum number of attendances at parade required to make an efficient. The percentage of extra-efficients has been steadily increasing of late years, as, indeed, it ought to have done, for the extra musketry practice required to make an extra-efficient is so little, and easy of accomplishment, that there is practically no reason why every volunteer should not become extra-efficient, and so earn the increased Rs. 10 capitation grant for his corps.

The number of officers, non-commissioned officers, and men, who have passed the examination in drill, known as the proficiency examination, is returned as 2,963. The knowledge required for this examination is of a very elementary character, and without sound practical teaching and experience is soon liable to be forgotten.

To give a conception of the vitality of the Indian volunteer forces, 3,827 recruits were enrolled during the past season 1896-97, which is in excess of the number of resignations and retirements. The volunteers may thus be regarded as steadily increasing in strength, though there is still considerable room for expansion, especially in the chief presidency cities, where taking into consideration their large European population the number of volunteers is very small compared with the mofussil. The total number of male Europeans in India returned at the last census in 1891, was 101,278, and the number of male Eurasians, 36,819.

The 3,743 cadets, though they can hardly be counted as efficient, who could be used on active service, are yet a most important factor in the volunteer movement, for it is the cadets who turn out the best trained volunteers. A boy, who has had three or four years' training in a cadet company, is consequently a far more efficient and better disciplined volunteer than one who has joined the force at a later period in life. The cadet gets a sounder training and more thorough musketry instruction than it is possible to give an adult, attending, as he does, probably over fifty drills in the course of the year. Cadet companies should, therefore, by every means be encouraged, and an annual extra capitation grant of Rs. 5 given by Government as a grant to schools themselves. For every efficient cadet, would be money well spent.

The 1,346 volunteer reservists cannot seriously be considered as an effective component part of the volunteer forces, in any way, beyond that of giving a small extra capitation grant for the corps they belong to. They receive no practical training of any use, would never be forthcoming if required, and should either be re-organized, or disbanded at the earliest opportunity. At present they do more harm than good, by affording an outlet for many ill-bodied men to escape the obligations of active volunteering by becoming reservists.

If the volunteer reserves are to be kept up, no man should be allowed to join them, who has not put in two or three years' efficient service, or is under forty-five years of age.

The composition of Indian volunteers is somewhat varied, and naturally those corps, which have a preponderance of pure Europeans on their rolls, are the best. From returns, as nearly accurate as I can gather, there are in the volunteer forces in India 12,378 pure Europeans, 14,134 Eurasians, and 2,921 other classes.

Of the fighting and soldier-like qualities of the European volunteers, there can be no doubt ; they are well educated, intelligent men, with a considerable leavening of old soldiers among them.

Eurasians differ widely in character. The better class of Eurasian makes an excellent volunteer, is of fair physique and possesses good soldier-like qualities ; he does not, however, preponderate. Taken generally, as a whole, Eurasians are a class of people who require very careful handling and treating with great tact. They are extremely sensitive of their position and often prone to take offence where none is meant. They have little or no idea of military discipline, and their susceptibilities are such that they are apt to regard an order, not prefaced, with please, or will you kindly do this, that, or the other ? as a deliberate attempt to ride over them roughshod, and consequently as beneath their dignity to obey without protest. On the other hand, they are quick and intelligent, have excellent eye-sight, and make capital shots, and though their physique is not equal to an Englishman's, there are plenty of smart young men amongst them who only require a proper training, regular exercise, and a more open air occupation to make good soldiers of them.

I have often, from time to time, read discussions in the press as to the advisability of raising Eurasian regiments of regular troops ; and, whilst on this subject, see no reason why it should not be done. Such corps would be of immense benefit to the whole Eurasian community, and would, by instilling reliance and manliness into them, go far towards providing them with an honourable occupation, and so raise them in their own and every one else's estimation. The great drawback to enlisting them seems to be their physique, but if Eurasians of fair physique were enlisted young, and properly fed and exercised, we should see as great an improvement in them in the course of three or four years as we do in the boy recruits of our own line regiments and the same men on their transfer to the army reserves. As an experiment, in the first instance, I would suggest the formation of three companies of garrison artillery, one for each presidency, sufficient good material for which would be forthcoming. If found satisfactory, as I am confident they would be, three infantry battalions might be formed, for more than which I am doubtful if suitable recruits would be forthcoming. The service would have to be long service, and pay the same as for British troops to entice the better class Eurasian to enlist.

perhaps, any of her colonies. There is, therefore, much more reason for their existence and maintenance on a sound and efficient footing, ready at all times for any emergency they may be called on to meet. To have them in this satisfactory condition, should be the aim and object of every British subject in India desirous of maintaining the supremacy of the mother country and guarding her possessions against all aggressors.

There is little doubt that to solve this question satisfactorily, and to put the auxiliary forces in India on a really sound basis, the bearing of arms by all men of British extraction residing in India should be made compulsory by law. I am not sufficiently well versed in politics to know the reason why this is not already so; but, after nearly five years' experience as an adjutant of volunteers and a considerable intercourse with Indian civilians, I believe the almost universal consensus of opinion amongst them both, is that military service should be compulsory by law, and were the Government ever to introduce a compulsory service, few, if any, would object, or find it any hardship to undergo the small annual training that would be required of them.

Indeed, the greater portion of the volunteer force would gladly welcome the change, as putting every one on the same footing, and so perform their military duties in a more cheerful and a whole-hearted manner than they at present volunteer to do. The majority of the auxiliary forces in India being already semi-compulsory so, the transition would not be great.

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| | | | Enrolled strength. |
|----|---|-----|-----------------------|
| 2 | corps, naval volunteers | ... | 576 |
| 12 | corps, light horse | ... | 1,798 |
| 6 | corps, artillery ... | ... | 1,018 |
| 2 | companies, engineers | ... | 168 |
| 3 | corps and two companies, mounted rifles | ... | 772 |
| 37 | corps, rifles volunteers | ... | 14,759 |
| 11 | corps, railway volunteers | ... | 10,043 |
| 3 | corps, reserve volunteers | ... | 299 |

Forming a total enrolled strength of 29,433 volunteers.

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If the volunteer reserves are to be kept up, no man should be allowed to join them, who has not put in twelve years' efficient service, or is under forty-five years of age.

The composition of Indian volunteers is somewhat varied, and naturally those corps, which have a preponderance of pure Europeans on their rolls, are the best. From returns, as nearly accurate as I can gather, there are in the volunteer forces in India 12,378 pure Europeans, 14,134 Eurasians, and 2,921 other classes.

Of the fighting and soldier-like qualities of the European volunteers, there can be no doubt ; they are well educated, intelligent men, with a considerable leavening of old soldiers among them.

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I have often, from time to time, read discussions in the press as to the advisability of raising Eurasian regiments of regular troops ; and, whilst on this subject, see no reason why it should not be done. Such corps would be of immense benefit to the whole Eurasian community, and would, by instilling reliance and manliness into them, go far towards providing them with an honourable occupation, and so raise them in their own and every one else's estimation. The great drawback to enlisting them seems to be their physique, but if Eurasians of fair physique were enlisted young, and properly fed and exercised, we should see as great an improvement in them in the course of three or four years as we do in the boy recruits of our own line regiments and the same men on their transfer to the army reserves. As an experiment, in the first instance, I would suggest the formation of three companies of garrison artillery, one for each presidency, sufficient good material for which would be forthcoming. If found satisfactory, as I am confident they would be, three infantry battalions might be formed, for more than which I am doubtful if suitable recruits would be forthcoming. The service would have to be long service, and pay the same as for British troops to entice the better class Eurasian to enlist.

The 2,921 volunteers, returned as other classes, are composed of Native Christians, Portuguese, and Parsees. It would be better if it were against regulations to enrol these classes, and the less said of them the better. They are generally only admitted into corps to keep up the numbers and gain extra capitation allowance, are of poor physique, and do a great deal of harm to the esprit-de-corps of volunteers.

The officering of volunteers is always a matter of difficulty, and nowhere more so than in India. Local gentlemen, not liable to constant transfer, of the right stamp and position, who are willing to interest themselves in volunteering and devote time and trouble in obtaining a thorough grasp of their drill and duties, are few and far between. The inducements to become a volunteer officer are inconsiderable, whilst the expense and obligations undertaken, on accepting a commission, are by no means light. A grant to aid officers in meeting the expense of providing themselves with uniform might well be allowed in India as in England.

The system of electing officers to the junior ranks of Indian volunteers is objectionable and without any good points. It is subversive of discipline, and occasionally permits individuals to hold a commission, who do not command that respect from their fellow volunteers which is so desirable. It is not unknown that trouble and dissatisfaction have arisen in corps on this matter. An officer, to become a captain in Indian volunteers, must be three times elected if he work his way up from 2nd-lieutenant, or he may be elected straight off to the rank of captain, to the detriment of other deserving officers. Commanding officers, subject to the approval of the general officer commanding and Local Government, should have the nomination of officers for promotion and appointment in the corps they command. Selections so made are far more likely to be suitable than the present system of balloting for a candidate, as if he were a country councillor or member of a municipal board; when he must either canvas for votes, or get somebody to do it for him, or run the risk of finding himself rejected in favour of some more pushing or enterprising individual and be mercilessly black-balled. Volunteers in this respect should not be regarded as if they were banditti.

Suitable officers, too, even when they are obtainable, are so constantly transferred from one station to another that it is a matter of great difficulty for most corps to retain an officer on its rolls for more than two or three years. On a gentleman being asked to take a commission in volunteers, the usual

reply is : " What is the good, I shall be transferred before I know where I am ! " The Local Government and departments never seem to take into consideration the welfare of volunteers in making transfers, and naturally, therefore, civilians in Government employ are reluctant to take a commission in a corps, their connection with which is liable to be severed at a moment's notice.

For this and other considerations of drill and discipline, volunteers in India would be much improved if they had paid commandants, who might be retired or unemployed officers of the regular army, appointed with a small staff salary for a term of five or seven years. Big civilians and others, who are now nominally commandants, but who mostly have not the spare time to attend to their volunteer duties efficiently, would remain as honorary colonels, and by their influence and power render valuable aid to the cause.

Taken all round, volunteer officers are lamentably deficient in knowledge of drill and duties in the field, and have a very poor idea of commanding a body of men, let alone leading them in the face of an enemy. This is mainly their own fault and due to non-attendance at parades, especially company parades, a general lack of interest in their duties and want of esprit-de-corps. It is also partly due to their never having had a proper opportunity of seeing drill, etc., carried out as it should be, and for this reason all officers of volunteers, on taking a commission, should be attached to a line regiment for a month, and made to pass a practical examination at the end of that time, which should qualify them to draw uniform allowance as now granted to volunteer officers in England.

The present proficiency examination which officers have to pass, though useful and going some way towards elementarily instructing an officer in his duties, does not give him the same confidence or grasp of drill that a month's or even a fortnight's training with regular troops would.

Few company officers ever trouble themselves much about the interior economy or efficiency of their companies. They leave them to the care of the staff officers and non-commissioned officers, and think if they attend a few battalion parades, they have done quite sufficient, whereas they can scarcely expect to learn all they want to know in, say, ten or twelve battalion parades. They could also, by personal example, greatly improve the attendance at company drills, and consequently the efficiency of their men, were they to exert themselves more on this point.

According to the Indian Army List for April 1897, the number of volunteer officers, exclusive of staff officers, is 1,303, out of which 128 are on the supernumerary list and 100 on the unattached list.

The number of supernumerary and unattached officers, caused by the constant transfers that occur in the official administration of the country, is inordinately large. At present, on an officer being transferred, he becomes a supernumerary, and is permitted to bear his name on the rolls of his corps as such, and on the unattached list for a period of five years. Needless to say, he does this, and for five years he is able to escape the worries of volunteering, and at the same time call himself a volunteer officer, without attending a single parade, or interesting himself in his corps in any way whatsoever. Should he be very keen in keeping up his military knowledge, he can become attached to another corps; but as an instance of how often this happens, out of 228 supernumerary and unattached officers, only four have become attached to other corps, whilst there is absolutely no reason why practically the whole 228 should not have become attached, and so keep up their military training instead of allowing it to die out.

To obviate this, transfers from corps to corps should follow on official transfers as a matter of regulation, and officers should be taken on as supernumeraries of the corps nearest their residence and required to become efficient with it, and absorbed as opportunity occurs, coming into their new corps as juniors of their rank. Officers, who are non-efficient for more than two years without leave or special reason, should be required to resign. This would do away with the waste that now takes place, and ensure officers keeping up their military training to some extent.

The above remarks should also apply to adult non-commissioned officers of volunteers who have passed their proficiency examination. These painstaking volunteers should not be required to resign rank, often obtained by long and honourable service on transfer, but should, in like manner, be taken on in their new corps as supernumeraries and absorbed as vacancies in their rank occur. The average annual transfers that take place in most corps are about 25 per cent. of their strength if not more, so that the measures advocated would be most fair, and I think meet with the approval of Indian volunteers, four-fifths of the component parts of which are more or less migratory.

The regulations on the status of an adjutant of Indian volunteers appear to require reconstruction and remodelling

on the same lines as those of an adjutant of English volunteers, which rule that an adjutant if a captain, ranks regimentally as senior captain, and if a lieutenant, as junior captain of the corps he is attached to for purposes of command. The Indian regulations expressly forbid an adjutant of volunteers to assume command of a corps, except only for purposes of instruction—a condition which has occasionally been embarrassing for the adjutant.

Sergeant-majors of volunteers might well be granted warrant rank after five years' satisfactory probation as such. The present prospects of a sergeant-major of volunteers are hardly adequate for the amount of work expected and required of him. In addition to supervising the other sergeant instructors and performing the ordinary duties of a regimental sergeant-major, he has the duties of orderly-room quartermaster and armourer sergeant to do. He must attend all drills and must be possessed of considerable tact and ability to fulfill his position. He has, moreover, to serve his whole time in the plains of India, unless with a hill volunteer corps, and certainly deserves the chance of promotion to warrant rank after satisfactory service.

The discipline of volunteers leaves a good deal to be desired, for which there are many reasons. In the first place, the volunteer knows he cannot be coerced. The only means of punishing a man are too cumbrous for any commanding officer ever to take the trouble to put them in action; consequently, the volunteer is apt to take advantage of this and do pretty well as he pleases.

It is one thing for a commanding officer to order a man to attend a certain parade, but quite another thing to make him do so unless he pleases, even if the parade is an inspection one. The powers of a commanding officer of volunteers are practically *nil*; his only means of punishment is by a court-martial—a way seldom, if ever, resorted to; not because it is never necessary, but because it is too complicated and long a business. The Commandant of a volunteer corps should have the power of simple dismissal, subject to the appeal of the volunteer concerned to a court-martial, should he deem himself unjustly dealt with.

Volunteers, when required to do anything, are too often asked to do it in a supplicatory sort of manner; their services are requested as a great favour, and they naturally look upon it as a favour to give them; there is too much "kindly or please to do this, that, or the other," instead of a simple order

to do it. This is all bad training, and there is far too much of it, and it should be discouraged. Of course, we all know that volunteers cannot be driven, and that they must be treated tenderly, but there is a strong tendency to overdo it and go too far in the other direction, which is bad education, and causes volunteers to lose sight of the very first duty of a soldier.

The number of non-efficient volunteers is returned as 1,936. There is no punishment for these non-efficients, except trial by court-martial, and there is no doubt that most of them should have been tried ; but how often is it done ? I venture to say that not half a dozen non-efficients have been tried during the past year, nor, as far as I can ascertain, even one of them, though many must have been wilfully and culpably non-efficient, some probably for two or more consecutive years. Every non-efficient who has not been on leave of absence, or can give no good and sound excuse for his non-efficiency, should be fined, by regulation, the amount of capitation lost by him, and there should be no option about it.

There are always a certain number of men in every corps who have to be wheedled or badgered into making themselves efficient, and then not always with success. They would be a good riddance, if there was some simple means of disposing of them ; for by their passive resistance to orders and discipline they are a bad example to many others.

Volunteers in India may be roughly classed in these categories—*viz.*, patriotic, compulsory, and pot-hunting volunteers. Those in the first category are literally the only real volunteers in the true sense of the word, and are volunteers pure and simple from a sense of duty to their country and themselves ; naturally, they are the best volunteers and perform their duties with keenness, alacrity, in a whole-hearted manner. They do not, however, at present compose the majority of Indian volunteers, though perhaps in time, with altered conditions, they may.

The compulsory, or perhaps they should be called the semi-compulsory, class form the bulk of Indian volunteers. They are railway and Government servants who undertake volunteer obligations as part of the conditions of their service, and are generally good and satisfactory volunteers and amenable to discipline, though there are a few amongst them who have a distinct dislike to the business, and look upon the performance of their obligations as a hardship. Consequently, these unwilling volunteers perform their duties in the most perfunctory

manner and only complete their nine drills, and fire their musketry course after endless procrastinations, and being served with frequent notice by the despairing adjutant of the corps they belong to. These dissentient volunteers, by their grumbling behaviour and bad example, are largely responsible for the great difficulty there is in raising volunteers to any high pitch of efficiency or smartness, for they are not only absolutely without any esprit-de-corps themselves, but act as a deterrent to others performing their duties cheerfully.

The pot-hunting volunteer is a small class existing in a more or less degree in nearly every corps, who are volunteers for what they can make out of prizes, clothing, gharri hire, for the sake of a uniform and other purely personal considerations.

In order to raise the efficiency and discipline of Indian volunteers, every endeavour should be made to get them to act collectively and drill in large numbers together. Volunteers should, as often as possible, be brigaded together, or with regular troops; and whenever a volunteer camp of exercise does take place, it should be where drills and field days can be held with regular troops or other volunteer corps. The brigading of volunteers in England together, and with regulars, has done immense good, and has been mainly responsible for the largely increased efficiency developed of late years in English volunteers. No one expects volunteers to drill with the precision of regulars, and it is not required of them, but by constant contact with troops of the line, emulation, friendly criticism and force of example will do more to raise their efficiency than anything else.

The minimum number of parades an Indian volunteer has to attend to make himself efficient are nine per annum, exclusive of musketry; and as the recruit's course is short and usually of a very elementary character, except in the case of cadets, it is not to be expected that a volunteer, who only attends the minimum number of parades, is in any degree efficient. Excepting cadets, very few volunteer recruits can be induced to attend a sufficient number of recruit's drills. As a rule, they attend two or three, and then go off at once to battalion drills, and consider they are properly trained, and the staff who are kept to instruct them scarcely ever have a chance of drilling them again. All recruits should be kept at squad and musketry drills under a sergeant instructor until passed by the adjutant as fit to join the ranks. At present there are numbers of men who have been volunteers for years, who scarcely know their right hand from their left, and who are very difficult to get through their annual course of musketry, all through imperfect

first training and never having been put through a proper recruit's course. To their great credit, most volunteers attend a far larger number of parades than is absolutely required of them ; the average attendance being fifteen to twenty parades per annum, and in some corps, which are keen, the average attendance is higher than this.

The musketry efficiency test is fired on a very easy scale, and a volunteer has only to fire twenty rounds at two and three hundred yards, and make a very moderate score to become efficient. To become extra-efficient, he has to fire an extra twenty rounds at 500 and 600 yards, and make a total score of eighty-five points in the whole course. I think the musketry of volunteers would be greatly improved and their efficiency largely increased if the ordinary efficient were required to fire forty rounds instead of twenty, making scores of twenty, fifteen, ten and ten at 2, 3, 5 and 600 yards, respectively, and that in order to become extra-efficient, a further thirty rounds should be expended in field practices and volley firing.

Good shooting is generally considered the volunteer's strong point, but it is not really so. The average standard of volunteer musketry is a long way behind that of the regular army. There are a certain number of volunteers in each corps who are uncommonly good shots at a target. They spend a tremendous deal of time in practice, and are capable of holding their own at individual target shooting with any riflemen in the world, but the percentage of such men is very small, not more than two or three per cent. The larger number of volunteers are indifferent or bad shots, who require considerable patience and care to get them through their musketry course, whilst that most important subject—fire discipline and control—may in volunteers be classed as very bad. It is to be hoped that volunteers will soon get a new rifle, as the kick of the Martini-Henry is largely responsible for putting a great many off shooting and preventing them taking a liking to it. The Martini-Metford rifle would appear to be excellently suited to volunteer requirements. A magazine rifle not being necessary and requiring more care than the average volunteer devotes to this rifle.

Volunteers in India often resign their corps on the most trivial occasions, to suit their own inclinations, for an imaginary slight, or if everything does not fall in exactly with their individual ideas ; and frequently re-enrol at once in some other volunteer corps, as often as not one in the same station ; for it is no uncommon thing to find detachments of two or three

different corps in the same place. I can name one small mofussil station with a population of scarcely thirty adult Europeans and Eurasians, which possesses detachments of three different volunteer corps, all with separate interests and separate sergeant instructors visiting each detachment monthly. The volunteers in this particular place consist of some ten light horsemen who, for years, have never done a mounted parade and possess no horse equipment. About a dozen belong to the local rifle corps and the remainder to a railway corps. Men wander from one detachment to the other at their own sweet will, or as the fancy seizes them. They never act collectively together, and as many of the European inhabitants of this place are often out in the district, the drills and musketry executed are of the most sketchy character, and, in fact, there may be said to be hardly any drill at all, and the sergeant instructor's visit often results in his being the sole representative on parade.

This is no isolated case, as there are dozens of places in India possessing a local corps and detachments of one or more railway corps. Would it not be better for all the volunteers of one station and belonging to the same arm to belong to one corps and drill together, whether they are railway men or not. All infantry volunteers should be made to join the volunteer corps of the district they reside in, and volunteers of other branches to join the nearest corps of the arm they belong to or be struck off the rolls, for in this way only the greatest number of men would be available to drill and act together, and the standard of efficiency and discipline raised. Dozens of times on asking a volunteer why he did not join the local corps, I have been answered—"Oh I belong to the———Light Horse or some other corps," whereas the individual has not been near the corps he mentions for a couple of years or more, and his prospects of again residing in his former district and serving with his own corps are extremely remote; and yet, on looking these men up in the rolls of their corps, they are in many instances steadily returned as efficient year after year, and capitation presumably drawn for them.

There should be some regulation on this subject, as also to prevent men resigning and re-enrolling in another corps without change of residence or other good cause.

I think it would be a good thing if railway corps were done away with and all volunteer corps organized provincially in districts or circles. Each province having at least one corps of each arm of the service, with as many more as it

could reasonably keep up, each corps strictly arranged in circles. Thus, the North-Western Provinces would have one regiment of cavalry consisting of squadrons or troops at whatever centres could raise sufficient mounted men to form them, such as Allahabad, Lucknow, Cawnpore, Ghazipur, and Gorakhpur. Garrison artillery is still lacking in the North-Western Provinces, but companies might be formed at Allahabad and Agra. Of rifle corps, there would be some eight battalions in the North-Western Provinces, with their centres much as they are now, of a strength of about 600 men each, if railway men were included. They would be numbered consecutively according to precedence. Each corps should be encouraged to maintain a mounted infantry company, if possible, for which special equipment should be provided by Government. This is a form of service which might be made much more of by Indian volunteers, and I am sure many gentlemen of good social status would be induced to join mounted infantry companies, who now hold aloof from the movement on account of the heterogeneous composition of ordinary companies. Volunteer cavalry are all very well for the big towns, but for the mofussil, mounted infantry is the thing, and in India invaluable. All mounted rifles should be styled and trained as mounted infantry; at present they are neither one thing nor the other.

Under the scheme of reorganization suggested, railway corps would be done away with, but would still have companies and sections under their own officers as at present. This may, at first sight, appear to be a pity, as I believe it is generally considered that railway corps are more efficient and better disciplined than most rifle volunteer corps. The reasons for this are not far to seek. Railway volunteers are compulsory volunteers, and have, moreover, a large percentage of old soldiers on their rolls. They are, from the nature of their duties, accustomed to strict discipline, and can be got at if they do not perform their volunteer obligations satisfactorily. Railway corps also are treated with more consideration than other corps in getting a Government allowance for shooting prizes and Khalassis, and railway volunteers are also classed as extra-efficients on firing twenty rounds, and making a score of fifty points. It is not easy to say why they should score over other corps in this fashion, as railway corps are generally wealthier than most others, and therefore should require less Government assistance. On the other hand, railway corps are spread out over enormous tracts of country, and most of them

can seldom or ever be exercised in any large numbers together in battalion drill or manœuvres, except only when collected for a camp of exercise. Were railway men to belong to the volunteer corps of the district through which the section of the railway they worked on passed, they would be just as efficient as they are now, and probably more-so, as having more frequent opportunities for collective drill. The sergeant instructors would be under better supervision, and considerable expense would be saved over their travelling allowance, as at present it often happens that two or three sergeant instructors visit a certain station in the course of a week, if there happen to be more than one volunteer corps in the place, whereas one sergeant could do the work perfectly well. The greatest advantage of all however, would be that all the men of one station would drill and work together and be under one command. Company drills would be more of a reality, instead of the two or three men who now generally turn up at out-stations for parade, and do nothing beyond a little desultory musketry.

It would be an excellent thing for the auxiliary forces in India if a deputy assistant adjutant general for volunteers were appointed for each command in India, whose sole duty it would be to see that the volunteer regulations were strictly adhered to, and that the drill and musketry was properly carried out on one and the same system; to check and classify all returns and ascertain that men returned as efficient really were so, and to be present at all volunteer camps of exercise and inspections in the command. A deputy assistant adjutant general for volunteers, with experience of different corps, could do a very great deal towards raising the efficiency of the force by instilling a proper spirit amongst volunteer officers, and generally bringing to the notice of the authorities any irregularities that occur, with suggestions for improved organization.

It may be said that the adjutants of corps should do all this, and so they do to the best of their ability; but it is impossible for them to do more than a certain amount, and were they to try too much, they would find their appointments untenable. In no walk of life does Talleyrand's advice of "*Surtout messieurs point de zèle*" more aptly apply than to an adjutant of volunteers, and he must manage affairs very gently and patiently to raise his corps beyond the average pitch of volunteer efficiency.

To read the annual reports and accounts of volunteers that constantly appear in the press, the uninitiated would imagine

they were as near perfection as it were possible for any body of troops to be. The amount of self-congratulation and fulsome flattery, unsparingly lavished, is at times sickening. It has been most refreshing to find that recently certain corps in Bengal have had their deficiencies plainly pointed out to them; and were the whole of the Indian volunteers so treated, the effects could not fail to be most beneficial.

The capitation allowance of Rs. 20 per efficient and Rs. 30 for each extra-efficient, disbursed by the Government for volunteers, is a very fair allowance and quite sufficient to cover all ordinary volunteer expenses, in return for which the Government has a right to expect that the volunteer force shall have a certain standard of efficiency and be something more of a reality than it is at present. It is not sufficient that every volunteer should be in possession of a rifle and ammunition; to be effective, he must know how to use it, and understand thoroughly how to act collectively under strict control and discipline,—a matter only to be properly learnt by steady drills and training during peace time.

Were volunteers required to act in India, their roll would be as much offensive as defensive, and their motto might well be "Defence and Defiance," as they should not only be able to defend their own homes and possessions, but strong enough to defy any interference from foreign and internal aggressors in any form. In order to do this, their efficiency must be at a higher standard than at present. England cannot hope to hold territory she is yearly acquiring, without the men to hold it by force of arms, if necessary; and that she will be allowed to remain quietly in possession of what she already has, without the tangible means of retaining it, is not to be thought of. The regular army is not capable of much further expansion without resorting to conscription. It should, therefore, be the pride of every man of British extraction to do his utmost to prepare himself to maintain the national supremacy by force of arms, if needs be, whenever called on. This he can best do by joining the auxiliary forces, and fitting himself in peace time to fight for his country in her hour of trial.

There are many men all over India who do not join the volunteers, because they think themselves quite well enough trained already, that they know how to shoot, and that, if the need does come, it will be time enough to join on the occasion happening. They forget that in the time of emergency the rifles for them very possible would not be forthcoming, as corps only receive arms according to their strength; and they

also forget that, without being trained to act collectively, they would be little better than an unruly rabble.

The sacrifices a volunteer has to make in becoming really efficient in the force are not inconsiderable, and every opportunity should be taken by the State of recognizing and encouraging a volunteer's services. It is no light thing for a man to voluntarily devote hours of his spare time, often after a hard day's office or other tiring work, by donning a uniform and learning drill or assisting others to learn it; and men who do this should command the admiration and respect of all. At the same time it should be remembered that what is worth while doing at all is worth while doing well. Volunteering in some respects may be likened to playing at the game of soldiering. If the game is properly played, there is very little difference between the amateur and the professional. On the other hand, if the rules of soldiering are not strictly adhered to, and the customs of the regular army remain unobserved by the volunteers, the whole thing becomes a farce, and instead of being of the utmost value to the Government, the Indian auxiliary forces are more likely to be little better than a disorganized mob, and the proverbial broken reed, to lean and rely on which would be suicidal.

IRONCLADS IN ACTION.

A REVIEW BY CAPTAIN J. M. FLEMING, I.S.C.

The title of Mr. Wilson's work is somewhat of a misnomer, seeing that naval encounters between all classes of ships during the past forty years are described. The dreadful results of shell fire at Sinope, and on the Allied Fleet at Sebastopol, made it apparent that the days of wooden ships were past, and before the end of the Crimean War iron-plated floating batteries had at the attack on Kinburu with great success inaugurated the period of ironclad warfare.

But the historic combat between the "Merrimac" and "Monitor," which is fully described, was the first encounter between armoured ships, which henceforth replaced the wooden walls in every navy.

The naval operations during the American Civil War occupy a great part of the first volume. The combats at New Orleans, on the Mississippi and at Mobile Bay, abounding as they do in deeds of daring, are most fascinating reading; but as the combatants fought in wooden ships, river steamers, and batteries plated with rail iron, with usually little or no mobility, but little insight into ironclad warfare can be gained. We, however, see again and again that forts are unable to stop ships determined to pass. On the other hand, forts were rarely silenced by ships alone. Throughout the operations on the Mississippi the necessity for co-operation between the land and sea forces was ever apparent, and the need of one guiding head, in combined operations, was repeatedly emphasized. While recognizing the daring of the Northern leaders, one cannot help admiring the ingenuity and pluck displayed by the Southerners, and the marvel is that they accomplished what they did with the means at their disposal.

The attack of the ironclad squadron on Charleston showed, as did our later bombardment of the Alexandrian forts, that ships are impotent against shore defences; and also that for such work numerous lighter guns, such as our old wooden walls carried, are more efficacious than a limited number of

monster weapons. A striking feature of early ironclad warfare was the immunity from danger secured to the crews by inferior armour against the feeble artillery of the time. The submarine boat, tried several times with disastrous effects to the users, yet managed to sink the Federal "Housalorice." Torpedoes and mines were often successful.

The supineness of the Federal Navy allowed the Southern war against commerce to be successful. The exploits of the "Alabama," and the unfortunate results for us, are matters of history; but, as Mr. Wilson points out, no infringement of neutrality was committed by us, until we had been irritated by American acts such as the "Trent" affair and unwarranted seizures of our ships. By our inaction we have practically admitted, luckily with the United States alone, that any ship is liable to capture if it contains contraband goods which may, at any subsequent time, or by any route, reach a belligerent. The author's opinion, that by our concessions we, on the whole, score owing to the reciprocal restrictions imposed on the United States, seems open to argument. During the 1885 war scare the Russians sent their volunteer cruisers to American ports, and there were no signs that they were unwelcome, and it would almost seem that in our desire for peace, and to conciliate our American relatives, we have carried complaisance a little too far. Judicious stationing of powerful ships at the points where ocean routes converge, and convoys, should protect our commerce in war. Steamers too can scatter and cannot be captured in droves as were the sailing ships of old; and provided we maintain an ample margin of cruisers, a war against our commerce should never bring us to our knees.

In a chapter on blockade, the author shows the impossibility of sealing up an enemy's ports in these days of steam. The Federals, against a nation powerless at sea, were unable to effectually close any one port, and this, with ample refitting bases at hand. All we can hope to do is to observe an enemy's ports and, with a force ready at once to start in chase, count on any ships that escape being soon brought to bay. A hostile ship's presence cannot long remain concealed in these days.

The Italian defeat at Lissa serves to show that men come before *materiel*, and that, before engaging in other operations, a hostile fleet must be dealt with. In ships and guns the Italians were vastly superior, but the Austrians, led by a man who knew his own mind, had made serviceable crews out of

to do it. This is all bad training, and there is far too much of it, and it should be discouraged. Of course, we all know that volunteers cannot be driven, and that they must be treated tenderly, but there is a strong tendency to overdo it and go too far in the other direction, which is bad education, and causes volunteers to lose sight of the very first duty of a soldier.

The number of non-efficient volunteers is returned as 1,076. There is no punishment for these non-efficients, except trial by court-martial, and there is no doubt that most of them should have been tried; but how often is it done? I venture to say that not half a dozen non-efficients have been tried during the past year, nor, as far as I can ascertain, even one of them, though many must have been wilfully and culpably non-efficient, some probably for two or more consecutive years. Every non-efficient who has not been on leave of absence, or on any leave, and who does not exist for his non-efficiency, should be tried by court-martial on the amount of expedition lost by him, and there should be no option about it.

There are always a certain number of men in every corps who have to be whipped for being behind in doing their soldier's duty, and then not always with success. They would be a good ridance, if there was some simple means of disposing of them; for by their presence, a nuisance to others, and because they are a hindrance to many others.

Volunteers in India may be roughly classed in three categories—*compulsory*, *compulsory*, and *pot-hunting* volunteers. These in the first category are literally the only real volunteers in the true sense of the word, and are volunteers pure and simple from a sense of duty to their country and themselves; naturally, they are the best volunteers and perform their duties with keener and alacrity, in a whole-hearted manner. They do not, however, at present, compose the majority of Indian volunteers, though perhaps in time, with altered conditions, they may.

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manner and only complete their nine drills, and fire their musketry course after endless procrastinations, and being served with frequent notice by the despairing adjutant of the corps they belong to. These dissentient volunteers, by their grumbling behaviour and bad example, are largely responsible for the great difficulty there is in raising volunteers to any high pitch of efficiency or smartness, for they are not only absolutely without any esprit-de-corps themselves, but act as a deterrent to others performing their duties cheerfully.

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Volunteers in India may be roughly classed in three categories—first, patriotic, compulsory and partly unwilling volunteers. Those in the first category are literally the only real volunteers in the true sense of the word, and are volunteers pure and simple from a sense of duty to their country and themselves; naturally, they are the best volunteers and perform their duties with keenness, alacrity, in a wholehearted manner. They do not, however, at present, compose the majority of Indian volunteers, though perhaps in time, with altered conditions, they may.

The compulsory, or perhaps they should be called the semi-compulsory, class form the bulk of Indian volunteers. They are railway and Government servants who undertake volunteer obligations as part of the conditions of their service, and are generally good and satisfactory volunteers, and amenable to discipline, though there are a few amongst them who have a distinct dislike to the business, and look upon the performance of their obligations as a hardship. Consequently, these unwilling volunteers perform their duties in the most perfunctory

manner and only complete their nine drills, and fire their musketry course after endless procrastinations, and being served with frequent notice by the despairing adjutant of the corps they belong to. These dissident volunteers, by their grumbling behaviour and bad example, are largely responsible for the great difficulty there is in raising volunteers to any high pitch of efficiency or smartness, for they are not only absolutely without any esprit-de-corps themselves, but act as a deterrent to others performing their duties cheerfully.

The pot-hunting volunteer is a small class existing in a more or less degree in nearly every corps, who are volunteers for what they can make out of prizes, clothing, gharri hire, for the sake of a uniform and other purely personal considerations.

In order to raise the efficiency and discipline of Indian volunteers, every endeavour should be made to get them to act collectively and drill in large numbers together. Volunteers should, as often as possible, be brigaded together, or with regular troops; and whenever a volunteer camp of exercise does take place, it should be where drills and field days can be held with regular troops or other volunteer corps. The brigading of volunteers in England together, and with regulars, has done immense good, and has been mainly responsible for the largely increased efficiency developed of late years in English volunteers. No one expects volunteers to drill with the precision of regulars, and it is not required of them, but by constant contact with troops of the line, emulation, friendly criticism and force of example will do more to raise their efficiency than anything else.

The minimum number of parades an Indian volunteer has to attend to make himself efficient are nine per annum, exclusive of musketry; and as the recruit's course is short and usually of a very elementary character, except in the case of cadets, it is not to be expected that a volunteer, who only attends the minimum number of parades, is in any degree efficient. Excepting cadets, very few volunteer recruits can be induced to attend a sufficient number of recruit's drills. As a rule, they attend two or three, and then go off at once to battalion drills, and consider they are properly trained, and the staff who are kept to instruct them scarcely ever have a chance of drilling them again. All recruits should be kept at squad and musketry drills under a sergeant instructor until passed by the adjutant as fit to join the ranks. At present there are numbers of men who have been volunteers for years, who scarcely know their right hand from their left, and who are very difficult to get through their annual course of musketry, all through imperfect

first training and never having been put through a proper recruit's course. To their great credit, most volunteers attend a far larger number of parades than is absolutely required of them; the average attendance being fifteen to twenty parades per annum, and in some corps, which are keen, the average attendance is higher than this.

The musketry efficiency test is fired on a very easy scale, and a volunteer has only to fire twenty rounds at two and three hundred yards, and make a very moderate score to become efficient. To become extra-efficient, he has to fire an extra twenty rounds at 500 and 600 yards, and make a total score of eighty-five points in the whole course. I think the musketry of volunteers would be greatly improved and their efficiency largely increased if the ordinary efficient were required to fire forty rounds instead of twenty, making scores of twenty, fifteen, ten and ten at 2, 3, 5 and 600 yards, respectively, and that in order to become extra-efficient, a further thirty rounds should be expended in field practices and volley firing.

Good shooting is generally considered the volunteer's strong point, but it is not really so. The average standard of volunteer musketry is a long way behind that of the regular army. There are a certain number of volunteers in each corps who are uncommonly good shots at a target. They spend a tremendous deal of time in practice, and are capable of beating their own at individual target shooting with any rifle men in the world, but the percentage of such men is very small, not more than two or three per cent. The larger number of volunteers are indifferent or bad shots, who require considerable practice and care to get them through the musketry course, whilst that most important subject—fire discipline and control—very in volunteers be classed as very bad. It is to be hoped that volunteers will soon get a new rifle, as the Vink of the Martini Henry is largely responsible for putting a great many men shooting and preventing them taking a liking to it. The Martini-Metford rifle would appear to be exceedingly suited to volunteer requirements. A large number of volunteers are, and remain, more care than the average volunteer devotes to his rifle.

Volunteers in India often resign their corps on the most trivial occasions, to suit their own inclinations for an innigery slight, or if everything does not fall in exactly with their individual idiosyncrasy and frequently resign at once in some other volunteer corps, as often as not one in the same station; for it is no uncommon thing to find detachments of two or three

different corps in the same place. I can name one small mofussil station with a population of scarcely thirty adult Europeans and Eurasians, which possesses detachments of three different volunteer corps, all with separate interests and separate sergeant instructors visiting each detachment monthly. The volunteers in this particular place consist of some ten light horsemen who, for years, have never done a mounted parade and possess no horse equipment. About a dozen belong to the local rifle corps and the remainder to a railway corps. Men wander from one detachment to the other at their own sweet will, or as the fancy seizes them. They never act collectively together, and as many of the European inhabitants of this place are often out in the district, the drills and musketry executed are of the most sketchy character, and, in fact, there may be said to be hardly any drill at all, and the sergeant instructor's visit often results in his being the sole representative on parade.

This is no isolated case, as there are dozens of places in India possessing a local corps and detachments of one or more railway corps. Would it not be better for all the volunteers of one station and belonging to the same arm to belong to one corps and drill together, whether they are railway men or not. All infantry volunteers should be made to join the volunteer corps of the district they reside in, and volunteers of other branches to join the nearest corps of the arm they belong to or be struck off the rolls, for in this way only the greatest number of men would be available to drill and act together, and the standard of efficiency and discipline raised. Dozens of times on asking a volunteer why he did not join the local corps, I have been answered—"Oh I belong to the———Light Horse or some other corps," whereas the individual has not been near the corps he mentions for a couple of years or more, and his prospects of again residing in his former district and serving with his own corps are extremely remote; and yet, on looking these men up in the rolls of their corps, they are in many instances steadily returned as efficient year after year, and capitulation presumably drawn for them.

There should be some regulation on this subject, as also to prevent men resigning and re-enrolling in another corps without change of residence or other good cause.

I think it would be a good thing if railway corps were done away with and all volunteer corps organized provincially in districts or circles. Each province having at least one corps of each arm of the service, with as many more as it

could reasonably keep up, each corps strictly arranged in circles. Thus, the North-Western Provinces would have one regiment of cavalry consisting of squadrons or troops at whatever centres could raise sufficient mounted men to form them, such as Allahabad, Lucknow, Cawnpore, Ghazipur, and Gorakhpur. Garrison artillery is still lacking in the North-Western Provinces, but companies might be formed at Allahabad and Agra. Of rifle corps, there would be some eight battalions in the North-Western Provinces, with their centres much as they are now, of a strength of about 600 men each, if railway men were included. They would be numbered consecutively according to precedence. Each corps should be encouraged to maintain a mounted infantry company, if possible, for which special equipment should be provided by Government. This is a form of service which might be made much more of by Indian volunteers, and I am sure many gentlemen of good social status would be induced to join mounted infantry companies, who now hold aloof from the movement on account of the heterogeneous composition of ordinary companies. Volunteer cavalry are all very well for the big towns, but for the mofussil, mounted infantry is the thing, and in India invaluable. All mounted rifles should be styled and trained as mounted infantry; at present they are neither one thing nor the other.

Under the scheme of reorganization suggested, railway corps would be done away with, but would still have companies and sections under their own officers as at present. This may, at first sight, appear to be a pity, as I believe it is generally considered that railway corps are more efficient and better disciplined than most rifle volunteer corps. The reasons for this are not far to seek. Railway volunteers are compulsory volunteers, and have, moreover, a large percentage of old soldiers on their rolls. They are, from the nature of their duties, accustomed to strict discipline, and can be got at if they do not perform their volunteer obligations satisfactorily. Railway corps also are treated with more consideration than other corps in getting a Government allowance for shooting prizes and Khalassis, and railway volunteers are also classed as extra-efficients on firing twenty rounds, and making a score of fifty points. It is not easy to say why they should score over other corps in this fashion, as railway corps are generally wealthier than most others, and therefore should require less Government assistance. On the other hand, railway corps are spread out over enormous tracts of country, and most of them

can seldom or ever be exercised in any large numbers together in battalion drill or manœuvres, except only when collected for a camp of exercise. Were railway men to belong to the volunteer corps of the district through which the section of the railway they worked on passed, they would be just as efficient as they are now, and probably more so, as having more frequent opportunities for collective drill. The sergeant instructors would be under better supervision, and considerable expense would be saved over their travelling allowance, as at present it often happens that two or three sergeant instructors visit a certain station in the course of a week, if there happen to be more than one volunteer corps in the place, whereas one sergeant could do the work perfectly well. The greatest advantage of all, however, would be that all the men of one station would drill and work together and be under one command. Company drills would be more of a reality, instead of the two or three men who now generally turn up at out-stations for parade, and do nothing beyond a little desultory musketry.

It would be an excellent thing for the auxiliary forces in India if a deputy assistant adjutant general for volunteers were appointed for each command in India, whose sole duty it would be to see that the volunteer regulations were strictly adhered to, and that the drill and musketry was properly carried out on one and the same system; to check and classify all returns and ascertain that men returned as efficient really were so, and to be present at all volunteer camps of exercise and inspections in the command. A deputy assistant adjutant general for volunteers, with experience of different corps, could do a very great deal towards raising the efficiency of the force by instilling a proper spirit amongst volunteer officers, and generally bringing to the notice of the authorities any irregularities that occur, with suggestions for improved organization.

It may be said that the adjutants of corps should do all this, and so they do to the best of their ability; but it is impossible for them to do more than a certain amount, and were they to try too much, they would find their appointments untenable. In no walk of life does Talleyrand's advice of "*Surtout messieurs point de zèle*" more aptly apply than to an adjutant of volunteers, and he must manage affairs very gently and patiently to raise his corps beyond the average pitch of volunteer efficiency.

To read the annual reports and accounts of volunteers that constantly appear in the press, the uninitiated would imagine

they were as near perfection as it were possible for any body of troops to be. The amount of self-congratulation and fulsome flattery, unsparingly lavished, is at times sickening. It has been most refreshing to find that recently certain corps in Bengal have had their deficiencies plainly pointed out to them; and were the whole of the Indian volunteers so treated, the effects could not fail to be most beneficial.

The capitation allowance of Rs. 20 per efficient and Rs. 30 for each extra-efficient, disbursed by the Government for volunteers, is a very fair allowance and quite sufficient to cover all ordinary volunteer expenses, in return for which the Government has a right to expect that the volunteer force shall have a certain standard of efficiency and be something more of a reality than it is at present. It is not sufficient that every volunteer should be in possession of a rifle and ammunition; to be effective, he must know how to use it, and understand thoroughly how to act collectively under strict control and discipline,—a matter only to be properly learnt by steady drills and training during peace time.

Were volunteers required to act in India, their roll would be as much offensive as defensive, and their motto might well be "Defence and Defiance," as they should not only be able to defend their own homes and possessions, but strong enough to defy any interference from foreign and internal aggressors in any form. In order to do this, their efficiency must be at a higher standard than at present. England cannot hope to hold territory she is yearly acquiring, without the men to hold it by force of arms, if necessary; and that she will be allowed to remain quietly in possession of what she already has, without the tangible means of retaining it, is not to be thought of. The regular army is not capable of much further expansion without resorting to conscription. It should, therefore, be the pride of every man of British extraction to do his utmost to prepare himself to maintain the national supremacy by force of arms, if needs be, whenever called on. This he can best do by joining the auxiliary forces, and fitting himself in peace time to fight for his country in her hour of trial.

There are many men all over India who do not join the volunteers, because they think themselves quite well enough trained already, that they know how to shoot, and that, if the need does come, it will be time enough to join on the occasion happening. They forget that in the time of emergency the rifles for them very possible would not be forthcoming, as corps only receive arms according to their strength; and they

also forget that, without being trained to act collectively, they would be little better than an unruly rabble.

The sacrifices a volunteer has to make in becoming really efficient in the force are not inconsiderable, and every opportunity should be taken by the State of recognizing and encouraging a volunteer's services. It is no light thing for a man to voluntarily devote hours of his spare time, often after a hard day's office or other tiring work, by donning a uniform and learning drill or assisting others to learn it; and men who do this should command the admiration and respect of all. At the same time it should be remembered that what is worth while doing at all is worth while doing well. Volunteering in some respects may be likened to playing at the game of soldiering. If the game is properly played, there is very little difference between the amateur and the professional. On the other hand, if the rules of soldiering are not strictly adhered to, and the customs of the regular army remain unobserved by the volunteers, the whole thing becomes a farce, and instead of being of the utmost value to the Government, the Indian auxiliary forces are more likely to be little better than a disorganized mob, and the proverbial broken reed, to lean and rely on which would be suicidal.

IRONCLADS IN ACTION.

A REVIEW BY CAPTAIN J. M. FLEMING, I.S.C.

The title of Mr. Wilson's work is somewhat of a misnomer, seeing that naval encounters between all classes of ships during the past forty years are described. The dreadful results of shell fire at Sinope, and on the Allied Fleet at Sebastopol, made it apparent that the days of wooden ships were past, and before the end of the Crimean War iron-plated floating batteries had at the attack on Kinburu with great success inaugurated the period of ironclad warfare.

But the historic combat between the "Merrimac" and "Monitor," which is fully described, was the first encounter between armoured ships, which henceforth replaced the wooden walls in every navy.

The naval operations during the American Civil War occupy a great part of the first volume. The combats at New Orleans, on the Mississippi and at Mobile Bay, abounding as they do in deeds of daring, are most fascinating reading; but as the combatants fought in wooden ships, river steamers, and batteries plated with rail iron, with usually little or no mobility, but little insight into ironclad warfare can be gained. We, however, see again and again that forts are unable to stop ships determined to pass. On the other hand, forts were rarely silenced by ships alone. Throughout the operations on the Mississippi the necessity for co-operation between the land and sea forces was ever apparent, and the need of one guiding head, in combined operations, was repeatedly emphasized. While recognizing the daring of the Northern leaders, one cannot help admiring the ingenuity and pluck displayed by the Southerners, and the marvel is that they accomplished what they did with the means at their disposal.

The attack of the ironclad squadron on Charleston showed, as did our later bombardment of the Alexandrian forts, that ships are impotent against shore defences; and also that for such work numerous lighter guns, such as our old wooden walls carried, are more efficacious than a limited number of

monster weapons. A striking feature of early ironclad warfare was the immunity from danger secured to the crews by inferior armour against the feeble artillery of the time. The submarine boat, tried several times with disastrous effects to the users, yet managed to sink the Federal "Housalorice." Torpedoes and mines were often successful.

The supineness of the Federal Navy allowed the Southern war against commerce to be successful. The exploits of the "Alabama," and the unfortunate results for us, are matters of history; but, as Mr. Wilson points out, no infringement of neutrality was committed by us, until we had been irritated by American acts such as the "Trent" affair and unwarranted seizures of our ships. By our inaction we have practically admitted, luckily with the United States alone, that any ship is liable to capture if it contains contraband goods which may, at any subsequent time, or by any route, reach a belligerent. The author's opinion, that by our concessions we, on the whole, score owing to the reciprocal restrictions imposed on the United States, seems open to argument. During the 1885 war scare the Russians sent their volunteer cruisers to American ports, and there were no signs that they were unwelcome, and it would almost seem that in our desire for peace, and to conciliate our American relatives, we have carried complaisance a little too far. Judicious stationing of powerful ships at the points where ocean routes converge, and convoys, should protect our commerce in war. Steamers too can scatter and cannot be captured in droves as were the sailing ships of old; and provided we maintain an ample margin of cruisers, a war against our commerce should never bring us to our knees.

In a chapter on blockade, the author shows the impossibility of sealing up an enemy's ports in these days of steam. The Federals, against a nation powerless at sea, were unable to effectually close any one port, and this, with ample refitting bases at hand. All we can hope to do is to observe an enemy's ports and, with a force ready at once to start in chase, count on any ships that escape being soon brought to bay. A hostile ship's presence cannot long remain concealed in these days.

The Italian defeat at Lissa serves to show that men come before *materiel*, and that, before engaging in other operations, a hostile fleet must be dealt with. In ships and guns the Italians were vastly superior, but the Austrians, led by a man who knew his own mind, had made serviceable crews out of

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Were volunteers required to act in India their role would be as much offensive as defensive, and their motto might well be "Defence and Defence," as they should not only be able to defend their own homes and possessions but stronger than to defy any force, even when foreign and internal aggressions in any form. It is hard to do this, for efficiency must mean a higher standard than at present. England cannot have a half-territory system, you're comparing without the men to win it by force of arms, if necessary, and that she will be allowed to remain quietly a possession and what she already has will be out the tag and contents of retaining it is not to be thought of. The regular army is not equipped for such a task, even with outposts, and to cross a province. It should be the duty of the people of every part of India to extract from their own resources to prepare themselves to stand the most severe and violent attacks of arms, if it is to be, whatever it is done. It is necessary to be by joining the auxiliary forces, and fitting them in peace time to fight for his country in her hour of trial.

There are many men all over India who do not join the volunteers, because they think themselves quite well enough trained already, that they know how to shoot, and that, if the need does come, it will be there enough to join on the occasion of fighting. They forget that in the time of emergency the rifles for them very possibly would not be forthcoming, as corps only receive arms according to their strength, and they

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inferior material. The burning of the "Palestro," the ramming of the "Ré d'Italia," and the disastrous attempt of the old wooden "Kaiser" to ram the "Portogallo" are the chief incidents of the fight. Seeing the "Ré d'Italia" was disabled and motionless when rammed, success does not add much to the meagre list of victories achieved by the ram.

The miserable vacillation and cowardice of the Italian leaders, redeemed only by the heroism of the Italian sailors in the hour of death, made the Austrian task easier than could have been anticipated.

The naval operations during the Franco-German War serve to show the folly of neglecting questions of draught when building,—a lesson we would do well to take to heart.

The encounters at sea during the Chilian War show the increasing power of the gun, while the torpedo successes during the Russo-Turkish and Franco-Chinese Wars lose much of their importance from the incapacity of the vanquished, who usually kept no watch.

In the Brazilian Civil War, however, the excellence of the watch kept revealed the presence of the "Aquadaban" to a searching torpedo boat which, in the dark, had passed her repeatedly. This same war again showed that forts alone cannot close an unobstructed channel to a fleet determined to pass.

The Japanese War against the Chinese Colossus, with feet of clay, gives us our latest information regarding naval warfare, although no modern battleships were engaged; but the hopeless inefficiency of the Chinese deprive many of the deductions from the results attained from having the value they apparently possess.

The inability of the swift unarmoured Chinese cruisers to withstand a well-directed fire from quick-fire guns, as compared with the comparative immunity of the obsolete Chinese armoured ships, should once and for all silence the advocates of the former to the exclusion of the latter. The danger from fire must soon cause wood to disappear from our war vessels. Deducting the men out of reach of projectiles below the waterline, the percentage of the Japanese loss under the feeble Chinese fire was considerably higher than that suffered by the victorious fleet in any of this century's naval battles, and in a Western encounter, where ships are certain to be sunk on both sides, the loss may amount to as much as 40 or 50 per cent. It would seem, as if national agreement should sanction the presence with every fleet of life-saving ships, to work like the Red Cross Societies on shore. Tegethoff proposed this after Lissa, and it is more necessary now when

quick-firers will have riddled any boats carried and destroyed the few floating substances on an iron-ship.

With the experience derived, Mr. Wilson gives us a forecast of what may be expected on the naval battle of tomorrow. He begins by showing that unless of the largest dimensions, and then only with enormous risk to themselves, can unarmoured cruisers enter the line of battle, great as would be the temptation to utilize their guns. The question as to whether a torpedo boat encounter will precede a battle is discussed, but the author inclines to the belief that the close of an action will be followed by a fierce encounter between the opposing boats, each anxious to destroy the battered mammoths of the opposite side. The Japanese managed to communicate by signal during the Yalu fight, but it seems unlikely this could be done during a Western battle, and hence Mr. Wilson rightly argues the Admiral's post should be in the van, exposed though he is, when his example can be seen if his signals cannot. The importance of protecting the means of internal communication during an action demands attention, as a ship, not under control, is more danger to her friends than to her foes. A distinctive colour for each fleet is recommended, seeing little is to be gained from disguise. As a battle formation line ahead is recommended, and is the one our Admiralty seem inclined to adopt, combats will be of short duration in all probability, commencing with a long range fire from quick-firers, which will destroy everything exposed. The side getting the worst will attempt to close, in order to try its luck in a *melée*, when the monster guns will probably claim many victims. Ramming, unless on a disabled ship, is attended with too much danger, particularly when torpedoes are to be reckoned with, to be much dreaded. Besides, it is almost an impossibility to ram a ship under control. There should be little capture in future battles, but total destruction of the beaten ship will take its place.

Victor and vanquished will, at the end of an engagement, be represented by bulks battered beyond recognition. It is now that a reserve of older ships may prove of inestimable value.

The work concludes with a chapter on ironclad catastrophes, and chapters on the development of the ironclad in our own and in the French Navy. Both volumes are singularly free from error, and will well repay perusal, and the general get-up, illustrations and tables at the end leave nothing to be desired.

We take this opportunity of saying that the Council of the Institution would gladly welcome further contributions on naval subjects—*Ed.*

THE ENCOURAGEMENT OF FENCING. A REJOINDER.

BY CAPTAIN F. C. LAING, 12TH (THE KELAT-I-GHILZAI) REGIMENT
OF BENGAL INFANTRY.

In the October number of this Journal, Lieutenant F. H. Pigou has given us some details of the "on duty" fencing classes to be held at Simla and Calcutta. I should like to comment briefly, if I may, upon one or two paragraphs in his article. While quite agreeing with the writer that fencing should be made as pleasant as possible, in order to obtain a sufficient number of members for the Indian Fencing Association, I am very doubtful whether a number of efficient fencers in the army can be obtained by a course of instruction, the attendance at which is purely voluntary. The idea of spending three months in Simla or Calcutta during their respective seasons is undoubtedly pleasant to contemplate, but there appears to be one insuperable difficulty which the originators of the scheme have failed to appreciate, and this is that regimental officers would find it next to impossible to obtain three months' leave during the drill season to attend a class in Calcutta, and that it would require a very complacent Commanding Officer to enable an officer to get three months' leave in the hot weather to go to Simla for the same purpose, and in addition, presumably, to his ordinary two months' privilege leave; further, if it was ruled that an officer who got three months to attend a fencing class thereby lost his two months' privilege leave for the year, it seems probable that few officers would apply to go to Simla, because the majority would prefer to spend their two months where and how they liked, shooting, and so on; there are always numbers of officers on leave in Simla, it is true, but they generally are men who journey thither for special purposes quite apart from the pleasure and sport of fencing. In my previous article, which appeared in the April issue of this Journal, I suggested—first, a method of obtaining trained fencers; and, secondly, a way by which skill in fencing might be taught and kept up in regiments: my reason for advocating an English training was the great difficulty of obtaining enough experts out in India; and, in suggesting the appointment of Deputy Assistant Adjutant Generals of Fencing, I took into consideration the patent fact that the majority of officers will *not* become fencers from choice; were all officers keen, there would be little need to urge the desirability of joining a fencing association, the truth being that, as a rule, English officers know little and care less for swordsmanship; their school-day play-hours are passed in cricket and football, etc., and unlike the French and other nations, fencing is looked upon with rather contempt than admiration, and hence it comes about that the majority require to be more or less forced to learn the use of the weapon they are armed with. It should,

However, be remembered that this compulsion would probably only be noticeable at the outset and among officers of some years' service, for it may be taken for granted that once Government recognised the necessity for all officers to be proficient in arms, no youngster would be permitted to join the service, who was not a fairly efficient swordsman; and consequently in time fencing would be taken as "all in the day's work," and gradually its fascination would be brought home to everyone.

From hearsay and from personal experience one is compelled to come to the conclusion that most officers will never learn fencing from choice, and it therefore becomes necessary either to enforce the learning, and make it at the same time as attractive as possible, or to lay aside the sword on active service for good and all. To place opportunities before men does not mean they will take advantage of them; to dilate on the beauties of polo is not enough to make every officer a polo-player; laziness and disinclination on a recruit's part is not allowed to interfere with a course of musketry sufficient to turn him into a fair average shot; why should these two factors, therefore, be taken into consideration where the officer is concerned? No sane person would dream of making every officer in the army, old and young alike, an expert in fencing; but it is not too much to hope that, given proper instruction in the beginning, followed by sufficient yearly practice, every officer would be able to wield his sword with some show of confidence and skill; and as this desirable result is not likely to be attained as long as fencing is voluntary, it seems that compulsion is the only course left; not, let it be urged, in the way that weird ceremony, called infantry sword exercise, used to be in former days, but with a due recognition that fencing is as necessary an adjunct to the officer's education as musketry is to the man's.

In many regiments, even at the present day, much valuable time is frittered away by officers being compelled to dawdle about the orderly-room. With two or three exceptions their presence is not required, but it is the custom: how much more profitable would it be to devote the half hours thus wasted to learning the art of swordsmanship.

There are some who advocate the abolition of the sword entirely, and the advantages and disadvantages of the weapon are, no doubt, open to considerable argument; but until the officer is armed with some other weapon in lieu, it behoves him to learn the use of his sword.

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NOTES ON HILL WARFARE.

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There is a want in the Service of some work on Hill Warfare. The Infantry Drill Book scarcely mentions it, and I know of no work which has yet been written on the subject with reference to fighting with frontier tribes, who, most of them, are accustomed to fighting from their youth upwards; who are surrounded with enemies, and who are excellent shots and the finest material for light infantry in the world; whose knowledge of hill tactics is excellent, who see faults and know how to take advantage of them, and from whom we have much to learn.

Having spent over twenty years on the frontier, more or less in contact with these tribes, I think the following rough notes may be of interest to some readers, as showing the lines on which most of the frontier regiments are trained to meet these tribes.

Advance-guards.—This is probably the simplest part of frontier warfare. As a rule, attacks are not made on advance-guards, except when a very strong position is held in force, but on the baggage or rear-guard; still, with an enterprising hill enemy, it never does to be careless, and all work should be thoroughly and carefully done.

An advance-guard may be told off as on a plain, except that groups are better than an extended line, as they are more under control, and single men, in jungle or rough ground, are liable to be lost, if wounded.

inferior material. The burning of the "Palestro," the ramming of the "Ré d'Italia," and the disastrous attempt of the old wooden "Kaiser" to ram the "Portogallo" are the chief incidents of the fight. Seeing the "Ré d'Italia" was disabled and motionless when rammed, success does not add much to the meagre list of victories achieved by the ram.

The miserable vacillation and cowardice of the Italian leaders, redeemed only by the heroism of the Italian sailors in the hour of death, made the Austrian task easier than could have been anticipated.

The naval operations during the Franco-German War serve to show the folly of neglecting questions of draught when building,—a lesson we would do well to take to heart.

The encounters at sea during the Chilian War show the increasing power of the gun, while the torpedo successes during the Russo-Turkish and Franco-Chinese Wars lose much of their importance from the incapacity of the vanquished, who usually kept no watch.

In the Brazilian Civil War, however, the excellence of the watch kept revealed the presence of the "Aquidaban" to a searching torpedo boat which, in the dark, had passed her repeatedly. This same war again showed that forts alone cannot close an unobstructed channel to a fleet determined to pass.

The Japanese War against the Chinese Colossas, with feet of clay, gives us our latest information regarding naval warfare, although no modern battleships were engaged, but the hopeless inefficiency of the Chinese deprive many of the deductions from the results attained from having the value they apparently possess.

The inability of the swift unarmoured Chinese cruisers to withstand a well-directed fire from quick-fire guns, as compared with the comparative immunity of the obsolete Chinese armoured ships, should once and for all silence the advocates of the former to the exclusion of the latter. The danger from fire must soon cause wood to disappear from our war vessels. Deducting the men out of reach of projectiles below the water-line, the percentage of the Japanese loss under the feeble Chinese fire was considerably higher than that suffered by the victorious fleet in any of this century's naval battles, and in a Western encounter, where ships are certain to be sunk on both sides, the loss may amount to as much as 40 or 50 per cent. It would seem, as if national agreement should sanction the presence with every fleet of life-saving ships, to work like the Red Cross Societies on shore. Together if proposed this after Lissa, and it is more necessary now when

quick-firers will have riddled any boats carried and destroyed the few floating substances on an iron-ship.

With the experience derived, Mr. Wilson gives us a forecast of what may be expected on the naval battle of tomorrow. He begins by showing that unless of the largest dimensions, and then only with enormous risk to themselves, can unarmoured cruisers enter the line of battle, great as would be the temptation to utilize their guns. The question as to whether a torpedo boat encounter will precede a battle is discussed, but the author inclines to the belief that the close of an action will be followed by a fierce encounter between the opposing boats, each anxious to destroy the battered mammoths of the opposite side. The Japanese managed to communicate by signal during the Yalu fight, but it seems unlikely this could be done during a Western battle, and hence Mr. Wilson rightly argues the Admiral's post should be in the van, exposed though he is, when his example can be seen if his signals cannot. The importance of protecting the means of internal communication during an action demands attention, as a ship, not under control, is more danger to her friends than to her foes. A distinctive colour for each fleet is recommended, seeing little is to be gained from disguise. As a battle formation line ahead is recommended, and is the one our Admiralty seem inclined to adopt, combats will be of short duration in all probability, commencing with a long range fire from quick-firers, which will destroy everything exposed. The side getting the worst will attempt to close, in order to try its luck in a *melée*, when the monster guns will probably claim many victims. Ramming, unless on a disabled ship, is attended with too much danger, particularly when torpedoes are to be reckoned with, to be much dreaded. Besides, it is almost an impossibility to ram a ship under control. There should be little capture in future battles, but total destruction of the beaten ship will take its place.

Victor and vanquished will, at the end of an engagement, be represented by bulks battered beyond recognition. It is now that a reserve of older ships may prove of inestimable value.

The work concludes with a chapter on ironclad catastrophes, and chapters on the development of the ironclad in our own and in the French Navy. Both volumes are singularly free from error, and will well repay perusal, and the general get-up, illustrations and tables at the end leave nothing to be desired.

We take this opportunity of saying that the Council of the Institution would gladly welcome further contributions on naval subjects—*Ed.*

THE ENCOURAGEMENT OF FENCING. A REJOINDER.

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An advance-guard may be told off as on a plain, except that groups are better than an extended line, as they are more under control, and single men, in jungle or rough ground, are liable to be lost, if wounded.

Flanking parties are always necessary, but in the hills cannot move along with the column, so have to remain where they are placed, fresh parties being sent up as the column advances.

With a brigade or larger force the advance-guard and flankers might be given from different regiments, and I think should move off about an hour before the main body marches. This allows of the troops moving quicker, as the road is already piquetted for them, and also probably saves loss of lives, as, with careful piquetting, the line of march should be fairly out of range of the enemy. In enclosed country it is necessary to increase the number of connecting files; no party or file should lose touch of that behind it. It should continually look round and see if it is there, and, if not, halt till it appears again.

On arriving in camp, the advance-guard should at once place the day piquets, which should be far enough out to prevent the camp being fired into.

Flank piquets.—These, in the hills, are a most important detail, and are not, as a rule, thoroughly understood.

With an enterprising enemy the piquets must be strong, and also be in such positions that an enemy cannot approach the line of march without coming under their fire.

The ground beyond the piquets should be in view, so that no enemy can collect in numbers without their knowledge.

It is better, with a strong enemy, to leave supports along the line of march, especially at places like the mouths of nullahs, where they are likely to try and rush the convoy or rear-guard.

Piquet sentries should not stand up or walk about. Their object is to see the enemy, not to be seen by him.

On moving up hill to their places, piquets must not straggle; they should keep together and fix bayonets, or they may move up in extended order and close as they get near the top. It is better then to send one or two men forward to spy out the country. Don't march on to the sky line; it only gives the enemy a magnificent target just when the men are too out of breath to shoot straight. On the way up make a note of the quickest and easiest way down, and, if possible, select one which will be under cover.

Piquets must be specially careful after the main body has past. Frontier tribes don't want to fight a big force which they know can beat them, but they want rifles and loot, and these can be obtained from the baggage or rear guard.

The piquets must, on no account, come down till the rear of the rear-guard is level with them.

When they retire they should leave a few active men to cover their retirement till they are well down the hill, when the party left should follow rapidly.

It is a common thing for the whole piquet to stand up and turn about in retiring, which at once shows the enemy what is happening, with the result that the position is occupied at once, and a heavy fire brought to bear on the rear or baggage.

Piquets should always withdraw as quickly as possible, when once they commence to do so.

The position of the companies who are to furnish the flank piquet should, on the line of march, be as near the head of the advance-guard as possible.

The piquet should always leave one man facing the line of march, as, in case of anything happening in that direction, he can warn the piquet.

Always give piquets orders when to come down. Rear-guards are frequently delayed by them. I recollect on one occasion when the piquets were asked why they had not joined, the answer given was that they had received no orders to come down.

The flank piquets and rear-guard are generally given by different regiments, and it is often useful to send a non-commissioned officer or officer (especially in wooded country), who knows where they are posted, with the rear-guard.

Convoys.—May be sent in one of two ways, either with a strong escort which marches the whole way with the convoy, or else each post sends out half-way escorts, piquetting the hills half way, and giving also an escort to keep the convoy from straggling.

One thing is absolutely necessary, and that is, that the flanks of a long convoy must be protected by carefully placed piquets.

Hence, in starting, the advance-guard must be much stronger than the rear-guard, as the rear is gradually strengthened by the flank piquets joining it.

Foraging parties.—As a rule, these parties do not go out more than four or five miles from camp. The road should, first of all, be strongly piquetted, and these piquets should remain out till the rear-guard returns. They should, when possible, be far enough out to stop the convoy being fired on.

The animals should have a special escort and be told off to certain fields or villages. The remainder of the force should

be so placed that an attack on the convoy cannot take place without serious loss to the enemy. The advance-guard should throw out piquets well to the front, and connect on both sides with the flanking piquets. As a rule, the advance-guard returning to camp is not attacked, but the rear or flanks are the points chosen. It is, therefore, necessary to see these are strong enough to resist an attack.

In retiring, successive positions should be taken up, and the rear-guard allowed to pass through and take up a fresh position, if necessary. All nullahs must be carefully watched, as it is down these an enemy generally creeps before he makes his sudden rush.

Forces searching or destroying the defences of villages work on the same principle.

Piquets well pushed out to the flanks and front, with supporting bodies in rear and under cover within supporting distance.

Keep these out till everything has been finished, and the troops formed up to march home.

Any good position on the road home should be held by fresh troops and the rear-guard allowed to pass through.

Nothing disconcerts hill tribes so much as to find a body of men in an unexpected position.

A sudden surprise, or an ambuscade, makes them very wary of following up troops.

Never lose touch of your rear-guard; halt the main body when it halts, and always be ready to move quickly to its assistance: in fact, consider your whole force as one large rear-guard.

Attack.—Before I commence this, I wish one point to be remembered, as it is a very important one, and that is, that men carrying seventy rounds, a day's rations, and a full water-bottle tire quickly if over-marched. It is distinctly the pace that kills with them, and many officers forget that they themselves are not so heavily weighted, and should therefore accommodate their pace to that of their men. Never force the pace unless there is some good reason for it. Officers riding seldom realise that horses walk faster than soldiers. If men are pressed beyond their ordinary pace, they straggle, and it was to the fact that the commanding officer led the leading regiment too fast at the Barara Tangi in the first Waziristan Expedition, and so made them straggle out that the successful attack of the swordsmen was due.

Another reason for not pressing the men is that the extra weight makes them perspire freely, with the result that they catch chills and become quickly unfit for service. The more you look after your men's comfort, the more men you will have fit for duty. When they get warm clothing see they wear it. It is curious how careless they are about this themselves.

In hill warfare the supports and reserves can be brought up much closer to the firing line than in the plains, and the less distance they have to go to reinforce the less breath they lose. In a large number of steep hills there are positions from which men advancing can be, to a certain extent, saved from the fire of the enemy by the supports and reserves firing over their heads. As each position is taken, the support should move up to the firing line and the reserve to the position of the support. The firing line again moves on under cover of the fire of the support. If three or four spurs are worked like this, with a cross fire kept up on sangars to right and left, and artillery helping at the same time, an enemy can be turned out of a very strong position; but one thing should be recollected, that whereas in a plain supports and reserves cannot fire over the heads of the firing line, in the hills they can frequently do so with impunity. I only give the above as a specimen of a hill fight.

Tribesmen are wonderful shots and shoot very straight; but I have often noticed that as our firing becomes more accurate, their's becomes less so, and then gradually ceases. Always, when possible, outflank your enemy; he will often leave a formidable position with little loss there, as he fears he will lose heavily in retiring if he holds on to it.

Rear-guards.—This, as in civilised warfare, is the most difficult task troops can be given to perform, and requires troops carefully trained to do it successfully in the face of an enterprising enemy.

But in order that a rear-guard may perform its duties properly, its flanks must be protected as it retires, as it will have quite enough to do to look after its front.

Whenever possible, successive positions should be taken up, and the rear-guard should move through and re-form to the rear.

No straggling must be allowed, as this is certain to lead to men being cut up.

All baggage guards and followers must remain with their own baggage; the latter are the worst offenders in straggling, and nothing but the fear of the cane will stop them doing so.

The rear-guard must always be alert ; they have sharp eyes watching them for a chance of attack, and the slightest carelessness will be noted and made use of.

In retiring after a reconnaissance, never let the main body get out of touch with the rear-guard. It always wants a position to fall back on if hard pressed, and frequently may want to be reinforced ; hence the main body should remain within recall. Touch should be kept up by connecting files or small parties, who can quickly pass on information.

Most officers, when retiring, expect the rear-guard to keep up connection with and regulate its pace by the main body ; on the contrary, the main body should move in accordance with its rear-guard, which may frequently be delayed by piquets not coming down quickly, or other circumstances under which it is not at all uncommon for the main body to march clean away from its rear-guard.

Piquets. Day.—The comfort and safety of the troops in camp depends on the position of the piquets. It is far better that a small portion of the troops should be disturbed than that the whole camp should be worried.

As arms of precision get into the hands of the frontier tribes, who are good judges of distance and excellent marksmen, it becomes necessary to place piquets further out from camp and in such positions that the men shall not be continually disturbed by sniping.

This point is not sufficiently recognised, and yet it is a very important one.

The further the piquets are out the stronger they must be ; but in a good sangar, with a ditch and abatis, a piquet of from twenty to fifty rifles can hold its own for a long time.

Night.—It is better, when possible, to hold the same piquets by night as by day. If this cannot be done, the night piquets should mount before the day ones come in, so that they can cover their retirement into camp.

All nullahs by which an enemy can approach should be watched. This is often done best by sending a strong party out after dark in order to surprise them coming down. This, if successful, has more effect than ordinary piquets have, as they are afraid other parties may be out watching for them, and one or two carefully worked "chapaos" often practically stop sniping at night.

Piquets must never pile arms, but men should keep their rifles by their sides day and night ; they are then ready for any attack.

In fact, except in camp, or when absolutely necessary, as at road-making, etc., I do not think rifles should ever be piled. When men fall out, they should keep their rifles in their hands.

Miscellaneous.

Never allow any strangers to sit down or mix with guards, escorts or piquets, or come near them on the march.

I have known cases when this has been done, and the whole guard killed, and the rifles, etc., made off with. All escorts should always send a point in front; it may save their lives.

In the Gomal, a few years ago, a whole escort was shot from a side nullah; this could not have happened if one or two men had been a hundred yards in front.

In advancing uphill in extended order against an enemy, who is given to charge downhill, it is generally best to close in to the centre nearing the crest, as the men are then in a better position to stand a charge.

Always go a steady pace uphill, and stop now and then to reform the line: some men walk slower than others, and it is better to wait for these to come up than to attack in a straggling loose formation.

The action at the Barara Tangi in Waziristan is an instance of the harm done by the latter formation.

In 1881, after clearing some low hills at Shah Alam Kaghza, the 1st Sikhs advanced up a spur covered with oak jungle, so thick that it was difficult to see more than ten yards off. About half-way up they halted, and the two front companies were ordered to lie down, fix bayonets, and load. Suddenly a charge was made on them, the enemy appearing about ten yards off. The fire they received sent them back, but the officer, instead of allowing his men to get out of hand, pursued them steadily up the hill, halting to re-form every now and then. This was a wise precaution, as, if the men had got out of hand and rushed up the hill, a rush of Waziris might have swept through them. As it was at each halt the Waziris tried to rush the companies, but did not succeed. I was then the junior subaltern in the regiment. After the charge we heard the General's bugler sounding our regimental call and the retire.

Colonel Rice, who was a very able officer and quite understood the situation, refused to obey the order, as he was aware that if we retired through that thick scrub before the Waziris

were beaten, the result would have been a heavy loss in men, so, instead, he drove them over the range, and we halted for some time and then retired without a shot being fired at us. That was the last stand the Waziris made.

They had made up their minds to attack us that night, and they certainly had an excellent position to rush; but a piquet of thirty men, placed well to the front after dark, fired into them heavily, and this, taken with the beating they received during the day, had the effect of stopping the rush.

When retiring over unknown ground, especially in the hills, always send intelligent men back to find out the paths leading to the rear.

Some years ago, in retiring from the crest of the Kohat Pass, a body of men, not knowing the way, moved straight down the hill. The Afridis saw their mistake at once and pressed them back on to the precipice below them, and I think about forty men were shot or fell over it. I remember General McQueen telling us how the recollection of this had once helped him in a similar position.

It was in the Jowaki Expedition, in 1877, he was commanding the 5th Punjab Infantry, and was acting as rear-guard to the force as it retired off the heights above Ghariba. The hills were very precipitous, so he sent some intelligent men back and found out the different roads down. He then gradually moved the regiment down, and kept a few active men above till the bad ground was passed; he then took up another position, and the last men ran quickly down the hill under cover of the fire of the men posted below.

As far as possible, leave a position quietly, and, if possible unobserved, take up a fresh position in rear, then at the last let the few men left clear out quickly. General Hammond's defence at the Asmai Heights in the last Afghan War, when left as rear-guard with I think only a company of the Guides, is an excellent instance of how this should be done. He gradually sent all his men down till he had about twelve left, and they held the hill till the enemy were nearly on them, and then quickly retired. It was on this occasion that he gained his V.C. Always outflank your enemy, even if it is only with a few men. I recollect once an enemy, in a very strong position, stopping a frontal attack entirely, but leaving the position suddenly, because a naick and six sepoy managed to crawl up a steep place and from the top enfiladed them.

Never allow men or followers to straggle. When a man falls out for any purpose, always leave a comrade to look after

him. At every halt put out small piquets. On one occasion the non-observance of this led to three men being knocked over from a nullah quite close to the force in the Jowaki Expedition in 1877.

An enterprising enemy is always on the look-out, and takes full advantage of any carelessness or mistake on your part.

Always fortify your camp and piquet posts, and have alarm posts told off. Even a wall two feet high is useful, as it shows men where to fall in, and gives a certain amount of cover, though it may not stop a rush. Always warn the men to fire low at night. If an attack on camp is expected, it is, I think, a good plan to strike tents at the first shot. There is then less mark for the enemy to fire at, and more room for the men to move about in. If you can afford tents for night piquets, and have those with dark lining, turn them inside out; they then are difficult to see at night.

Sir P. Palmer once gave me the following advice, the result, I believe, of a bad half hour in a fort in Burma:—"Allow no man to leave his alarm post without orders, even if other parts of your position are hard pressed, as the enemy can then enter at the place left unguarded. If the enemy get into the position, don't fire on them; you do more damage to your own men, besides demoralising them; turn them out with the bayonet."

An instance of how patient hillmen are when raiding once came under my notice at Kujari Kach in the Gumal. It was told by one of the party of Mahsud Waziris engaged in the attempt to steal the rifles of the cavalry grass-cut piquet there. The cavalry grass-cuts used to go out daily under escort to cut grass. The escort used to furnish a piquet on some convenient spot, and it was the intention of the Waziris to rush this piquet if they could manage it.

They watched for three weeks, and at last saw what appeared to be their chance; the sentry was sitting down with his carbine across his knees, and apparently asleep. They got ready for their rush from a nullah they were in about eighty yards away, when the sentry raised his head. Then in disgust they gave it up and went back to their country: but men who have such patience are dangerous enemies, as they seldom attack rashly.

It is better, when possible, when you have to return to camp, not to go so far as to be obliged to return after dark. Your knowledge of the country is small compared with

that of your enemies, and they know all the best places to ambuscade you at. If hardly pressed, it is often better to halt for the night in some strong position, and return to camp the next morning.

Learn, if you can, every path and road round your camp; they lead somewhere and may be useful to you later on. Never despise your enemy, and always be ready to learn something from him.

Take every opportunity of exercising your men in firing at unknown distances: nothing trains men for war so much as that practice in peace. Shooting on the range is excellent in its way; but a hillman is not a white target with a black bull's-eye, nor does he even at 800 yards show even a mark as large as a third class target.

I think the following two quotations should be borne in mind and acted on:—

"There is a general principle which I have laid down for 'the regulation of the officers' conduct under my command, 'which is, never to break the neutrality of any place, but never 'to consider as neutral any place from whence an attack is 'made. It is certainly justifiable to attack any vessel in a 'place from whence she makes an attack.'—*Mahan's Life of Nelson*. (For "vessel" read "man" or "tribe.")

"My system is to strike hard and keep on hitting till 'resistance is completely over; then at once to form ranks, 'cease slaughter, and be kind and humane to the prostrate 'enemy.'—*Skobeleff*.

One important point is to learn the signs which show the presence or absence of an enemy.

For instance, if the women and children are in the villages, the men will not fight. If the villages are empty, then they are ready for war.

A few snipers generally mean only a few enemies about.

One of the well known signs of troubles with the Afridis in Kohat is the sudden stoppage of the salt trade between Bahadur Khel and the Kohat Pass.

Marching at night requires very careful training: no officer who has not actually marched on foot with infantry realises the difficulty that the rear of the column has in keeping up, especially over bad ground or in single file. Two and a half miles an hour seems slow when you are marching at the head, but go to the rear of the column and you will probably find them doubling. The best plan is to make the head of each company

go its own pace and halt frequently; the men then come up by companies without unnecessary doubling.

Train your men in peace to the manœuvres they will have to perform in war. Forms of attack are very good in their way, but they won't do against hill enemies, who are off directly you mean business; and as they are the enemies we usually have to meet, it is worth while learning hill tactics beforehand. Don't let a man approach you with his face swathed in his *pagri*. It is frequently a sign that the man means to kill some one.

THE OLD ORDER CHANGETH.

BY COLONEL PHILIP NEVILLE, A.Q.M.G., MADRAS COMMAND.

In the archives of the Madras Command there are many old books and papers, covering a period of a hundred and twenty years and more, the perusal of which I have found both interesting and instructive. Interesting, as illustrating the way our Fathers lived in the early days of our occupation of India, and instructive, as bringing into higher relief the enormous strides we have made in arms, administration, and the art of war in the last century. To write an exhaustive essay on the subject would take more time than I have at my disposal, but the following few notes, jotted down at the time, will, I trust, commend themselves to the readers of this Journal:—

In 1773, the Court of Directors appears to have exercised a summary jurisdiction in the East Indies. They dismissed Officers and men from their service without the formality of a trial; indeed, a Court-Martial seems to have been considered in the light of an indulgence, for under date 10th September that year is the following General Order:—

"Ensign E——— d G———e having been ordered in arrest by Captain G——— for being Drunk on Duty and beating and abusing the Subadar of the Guard. The Governor and Council directed the Principal Officers of the Regiment to assemble and enquire into his conduct, which they accordingly did, and now report to the Board that Ensign G———e's Conduct is such, as to make him totally unworthy to hold a Commission in the Hon'ble Company's Service, and that the Circumstances are so notorious and flagrant, as to render him undeserving a General Court Martial.——— The Board, taking the same into Consideration as well as his Misconduct on a recent Occasion, when he was pardoned on Account of his Youth and inexperience, Find the representation of the Officers well founded, and do therefore dismiss him the Hon'ble Company's Service."

"Extract from the Minutes of
Consultation.

"(Signed) WILLM. PETRIE, *Secy.*"

The above extract is copied *literatim*, as far as punctuation and capitals go, as, also, are those which follow.

The Governor of Fort St. George exercised this power with respect to Native Officers, for fourteen years later, in 1787, he summarily dismisses "3 Subidars and 7 Jemidars, on account of their irregular and un-military conduct as reported by Captain E——."

On this occasion there was apparently no Court of Enquiry.

But the Board, if summary in punishment, could also be munificent in reward, for dated Fort St. George, 26th August 1788, is the following General Order :—

" By Government.

" The Hon'ble the president in Council is pleased to publish the following resolution of the Hon'ble the Court of Directors :—

" Resolved that Mr. W. J.—— of the Fort St. George

" Establishment be presented with the sum of

" Pagodas 10,000 as a Mark of the Court's appro-

" bation of his Services, and that Orders be Insert-

" ed in the Dispatches to Fort St. George for that

" sum to be paid to his Attornies there, accom-

" panyd with a Copy of this resolution in the

" General Orders of that Presidency."

It may here be remarked that the currency in circulation in India at the beginning of this Century consisted of the Pagoda, worth about eight shillings ; the Fanam, whose exact value there is nothing in these records to show, but which I imagine to have been worth about four pence ; and the Dam, a small copper coin, which has survived in a proverbial form, for we still say "not worth a Dam."

Further on I shall show the curious methods they had of dealing with currency questions in those days, but I must first mention some extraordinary customs then prevailing.

The first I notice is the firing of a salute of twenty-one guns at sunrise on Christmas Day from Fort St. George. This Order is dated December 24, 1788. Twenty-one guns was the usual Royal Salute, and one naturally wonders why they did not increase the number for a Celestial Saloo. After Reviews, when the Commander-in-Chief was pleased with the "exercises," he notified his approval in Orders by an issue of *Arrack* and Batta to the troops. On one occasion, indeed, so great was His Excellency's satisfaction that this issue was sanctioned for three consecutive days ! A Parade or Field Day, however, it must be borne in mind, was a very different thing a hundred years ago from what it is to-day. Troops were slow of movement, extremely "sticky" and marvellously precise. It will scarcely be credited that, when a Parade was ordered for sunrise on a certain date, *the Markers were placed on the ground at 5*

p.m. the day before !—and presumably slept there at their posts.

On the 16th December 1788 appears the following extraordinary entry in Wallajahbad Cantonment Orders :—

" Sir Archibald Campbell presents his Compliments to " Colonel Stirling, the Brigade Staff, and the Officers of the " Right Wing of the Brigade, and requests the Honour of their " Company to Dinner, on Wednesday next the 17th Instant."

Almost as curious is the Order from the same Station, dated 6th June 1787, when Colonel M——, Officiating Commandant, in ordering the obsequies of the late Brigadier (The Hon'ble Colonel G. Mackenzie) " presents his compliments to the Officers in Cantonments, and expects the Honour of their attendance in the Procession."

In February the same year, a Cantonment Order is published by authority of the Commander-in-Chief, fixing the prices of " European provisions and wines," and a shopkeeper objecting is " flogged publicly, and drummed out of Cantonments."

In 1790, Lord Cornwallis has before him the problem, which apparently caused much heart-burning, of the precedence of the troops of the three Presidencies when on Parade together, and after careful consideration he thus decided : " That the Bengal Troops are always to be on the Right of the Line, and the Madras and Bombay troops to take the Right of each other in their own Presidencies, but that *on Neutral Ground they were to draw lots* " ! !

In February 1790, Colonel Musgrave issues an Order from Camp Trichinopoly Plain, fixing the wages of Officers' servants, and ingenuously expressing " his hopes that as the rates allotted for the several Discriptions are Evidently calculated in the most equitable manner both for the Master and Servant, they will be Chearfully received and attended too, (?) the Inconveniency of having (*sic*) an established regulation on this subject, must be felt by all and more Especially by Individuals of the Junior part of the Army."

In July the same year, the Army being in the Field at Coimbatore, an order is issued limiting the number of private servants for which Officers are allowed to draw rations, and certainly the regulations on the subject cannot be called niggardly—

| | |
|------------------------------------|--------------|
| Colonels | 30 servants. |
| Lieutenant-Colonels | 24 „ |
| Majors | 18 „ |
| Captains | 12 „ |
| Subalterns | 6 „ |
| Non-commissioned officer | 1 servant. |

But what would the Financiers and Bimetallists of to-day say to the following Order (before alluded to) issued on Trichinopoly Plain on the 17th May 1790:—

“Colonel Musgrave being Determined to do every Justice to the Troops under his Command, has given directions that the Currency of the Province Shall be restored as near as possible to its' equitable Vallue (*sic*) and therefore Orders that from tomorrow the Porto Nova Pagoda shall pass current for twenty-five Trichinopoly Fanams, The Star Pagoda for twenty-eight Trichinopoly fanams, and a Trichinopoly fanam for twenty-four Cash, (The 'Cash' is used sometimes for the 'Dam') and that in addition thereto both the Porto Nova and Star Pagoda shall rise in equal proportions at such periods as shall hereafter be specified until the former shall pass current for 26 Trichinopoly Fanams and the Latter for 30 after which such rates of Exchange are not to be lowered.”

Before leaving the subject of currency, I must quote a truly remarkable Order by the Commander-in-Chief in 1787:—

“Many Subaltern Officers having applied to the Commander-in-Chief, to be appointed to situations of Advantage in the Service in order that they may thereby be enabled to pay their debts, he takes this Public Method of informing the Officers of the Army that the Plea of being in Debt will not be admitted as a Recommendation, but on the Contrary that he will be more ready to encourage those that prove themselves deserving by an Oconomical (*sic*) Conduct such as is proper and Commendable in Soldiers of every Rank. The Commander-in-Chief desires it may be understood at the same time that he will be happy in paying attention in Cases of Real and unmerited Distress.”

In those days a Battery of Artillery was apparently attached to each Battalion of Infantry, and Officers were liable to be transferred from the Artillery to the other Arms of the Service, and *vice versa*.

Thus, in September 1786, a Lieutenant Fireworker is removed from the Artillery to be an Ensign of Infantry, and in May 1787 an Officer of the same rank is transferred to the Cavalry.

In the Cavalry they had “Captain Lieutenants” and a Royal Engineer Field Officer is described in Orders as “T. Jones, Esq., Major and Director of Engineers.”

In the last Century Medical Officers had not the status which they now enjoy: there were no Surgeon-Major-Generals or Brigade-Surgeon-Lieutenant-Colonels. A Medical Officer is

described in Orders as "Mister William Smith, Surgeon." Apothecaries were styled "Surgeon's Mates," and Native Medical Subordinates were alluded to as "Black Doctors."

But, if sparing of titles in this Department, they were liberal in their allowance of comforts in the Field. Thus we find an Order in 1790 laying down that—

"Madeira Wine will be allowed at the rate of 6 Dozen in the Field Hospital for every 20 men per month, Substituting Port on particular occasions, when Necessary, no spirits to be allowed but for external use and at an average of 1 dozen of Brandy per Month for every 20 Men."

It is to be surmised that not all that good brandy was used for external application, in spite of the above Order, and how Tommy must have enjoyed his Madeira Wine!

There are many instances of curious texts in which the grammar is not always above suspicion. In 1786, the retiring Commander-in-Chief "cannot resign his Post of Commander-in-Chief without previously testifying his sentiments of the Army he has had the honor to Command on this Coast. He therefore takes the opportunity of returning his warmest thanks to both the King's and Companys Troops for their Constant attendance to their Duty, and the laudable emulation every different Corps has constantly shown to excel in good Order and discipline nor is it without sincere regret that he resigns the Command of the Troops, before he has had an Opportunity of serving with them in the Field for which he has doubts not (*sic*) he himself should have acquired great honor, and which with, pleasure, he ventures to predict will hereafter be injoyed by his Hon'ble Successor."

He further "begs leave to assure them, that when he returns home, he shall embrace every Opportunity of making their meretorious conduct known both to his Majesty and the Hon'ble Company, and shall be happy at all times to promote the honor and Interest of every person with whom he had the pleasure to serve in this Country."

In the Autumn of the same year the following appears in General Orders:—

"Officers Commanding Garrisons, Military Posts, or Stations are on no Account to lend Money, (fancy having any to lend!) or take any concerns in Farms, Tallacks, or Securities for purchasing or selling, or Contracting to Purchase or sell any Articles or Commodities whatsoever in the way of Trade, neither are they to have any dealings of any kind with Zimin-dars, Farmers, Ryotts, or other Dependents, or Officers of the

Revenues, they are on no pretext whatsoever to detach any part of their own force beyond their Respective Quarters, except when required for the execution of Publick Military Services, they are not to punish the people of any discription not Appertaining to their respective Commands without Authority had from the Chief and Council of the District nor are they to seize or confine Any of the Inhabitants unless they are guilty of some Criminal Actions in which case they are to report the same immediately to their respective Chiefs and Councils, or Residents."

In February 1787 there is a curious entry—

"Mr. S——having Requested the Commanding Officer, would make known to the Officers, and Men of the 2nd Brigade, the high sense he entertains of them as a Corps, for their very good appearance, when under arms, and for the honor done him by performing with precision, the several firings, and Manœuvres, of their field Day when he had the honor of being present, to which Major C——begs leave to add his thanks to the Officers and Men of the several Battalions."

In the following year, Officers and other persons were forbidden "to fire off their Fuzees within the Lines of any Cantonments."

In the spring of 1790, Major-General Meadows, the newly appointed Commander-in-Chief, addresses his army in the following spirited language :—

"The Commander-in-Chief, Major-General Meadows commences his acquaintance with that Army of whom he has heard so much and from whom so much is expected, without his entertaining the smallest Suspicion of being disappointed, by informing them that the critical period is probably Approaching when every exertion must be made, every Obstacle Surmounted and the word Difficulty unknown. When the most active Gallantry, the most determined bravery—and the most confirmed Discipline will be required to execute the Arduous but at the same time the Glorious task that is allotted to them not only to serve their Country,—but perhaps to save it.

"All History is full of examples of how little undisciplined numbers are to be feared by the cool, collected, and regulated few—and confident of their behaviour, he has nothing to wish them but Success; in proportion to the Justice of their cause—he recommends it to them in the strongest manner, to be as humane as they are brave to conquer, and spare,—The Commander-in-Chief proposes great pleasure, if ever it can be

were beaten, the result would have been a heavy loss in men, so, instead, he drove them over the range, and we halted for some time and then retired without a shot being fired at us. That was the last stand the Waziris made.

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In the archives of the Madras Command there are many old books and papers, covering a period of a hundred and twenty years and more, the perusal of which I have found both interesting and instructive. Interesting, as illustrating the way our Fathers lived in the early days of our occupation of India, and instructive, as bringing into higher relief the enormous strides we have made in arms, administration, and the art of war in the last century. To write an exhaustive essay on the subject would take more time than I have at my disposal, but the following few notes, jotted down at the time, will, I trust, commend themselves to the readers of this Journal:—

In 1773, the Court of Directors appears to have exercised a summary jurisdiction in the East Indies. They dismissed Officers and men from their service without the formality of a trial; indeed, a Court-Martial seems to have been considered in the light of an indulgence, for under date 10th September that year is the following General Order:—

"Ensign E———d G———e having been ordered in arrest by Captain G——— for being Drunk on Duty and beating and abusing the Subadar of the Guard. The Governor and Council directed the Principal Officers of the Regiment to assemble and enquire into his conduct, which they accordingly did, and now report to the Board that Ensign G———e's Conduct is such, as to make him totally unworthy to hold a Commission in the Hon'ble Company's Service, and that the Circumstances are so notorious and flagrant, as to render him undeserving a General Court Martial.——— The Board, taking the same into Consideration as well as his Misconduct on a recent Occasion, when he was pardoned on Account of his Youth and inexperience, Find the representation of the Officers well founded, and do therefore dismiss him the Hon'ble Company's Service."

"Extract from the Minutes of
Consultation.

"(Signed) WILLM. PETRIE, *Secy.*"

The above extract is copied *literatim*, as far as punctuation and capitals go, as, also, are those which follow.

The Governor of Fort St. George exercised this power with respect to Native Officers, for fourteen years later, in 1787, he summarily dismisses "3 Subidars and 7 Jemidars, on account of their irregular and un-military conduct as reported by Captain E——."

On this occasion there was apparently no Court of Enquiry.

But the Board, if summary in punishment, could also be munificent in reward, for dated Fort St. George, 26th August 1788, is the following General Order :—

" By Government.

" The Hon'ble the president in Council is pleased to publish the following resolution of the Hon'ble the Court of Directors :—

" Resolved that Mr. W. J.—— of the Fort St. George

" Establishment be presented with the sum of

" Pagodas 10,000 as a Mark of the Court's appro-

" bation of his Services, and that Orders be Insert-

" ed in the Dispatches to Fort St. George for that

" sum to be paid to his Attornies there, accom-

" panyd with a Copy of this resolution in the

" General Orders of that Presidency."

It may here be remarked that the currency in circulation in India at the beginning of this Century consisted of the Pagoda, worth about eight shillings ; the Fanam, whose exact value there is nothing in these records to show, but which I imagine to have been worth about four pence ; and the Dam, a small copper coin, which has survived in a proverbial form, for we still say "not worth a Dam."

Further on I shall show the curious methods they had of dealing with currency questions in those days, but I must first mention some extraordinary customs then prevailing.

The first I notice is the firing of a salute of twenty-one guns at sunrise on Christmas Day from Fort St. George. This Order is dated December 24, 1788. Twenty-one guns was the usual Royal Salute, and one naturally wonders why they did not increase the number for a Celestial Saloo. After Reviews, when the Commander-in-Chief was pleased with the "exercises," he notified his approval in Orders by an issue of *Arrack* and Batta to the troops. On one occasion, indeed, so great was His Excellency's satisfaction that this issue was sanctioned for three consecutive days ! A Parade or Field Day, however, it must be borne in mind, was a very different thing a hundred years ago from what it is to-day. Troops were slow of movement, extremely "sticky" and marvellously precise. It will scarcely be credited that, when a Parade was ordered for sunrise on a certain date, *the Markers were placed on the ground at 5*

p.m. the day before 1—and presumably slept there at their posts.

On the 16th December 1788 appears the following extraordinary entry in Wallajahbad Cantonment Orders :—

" Sir Archibald Campbell presents his Compliments to
" Colonel Stirling, the Brigade Staff, and the Officers of the
" Right Wing of the Brigade, and requests the Honour of their
" Company to Dinner, on Wednesday next the 17th Instant."

Almost as curious is the Order from the same Station, dated 6th June 1787, when Colonel M——, Officiating Commandant, in ordering the obsequies of the late Brigadier (The Hon'ble Colonel G. Mackenzie) " presents his compliments to the Officers in Cantonments, and expects the Honour of their attendance in the Procession."

In February the same year, a Cantonment Order is published by authority of the Commander-in-Chief, fixing the prices of " European provisions and wines," and a shopkeeper objecting is " flogged publicly, and drummed out of Cantonments."

In 1790, Lord Cornwallis has before him the problem, which apparently caused much heart-burning, of the precedence of the troops of the three Presidencies when on Parade together, and after careful consideration he thus decided : " That the Bengal Troops are always to be on the Right of the Line, and the Madras and Bombay troops to take the Right of each other in their own Presidencies, but that *on Neutral Ground they were to draw lots* " ! !

In February 1790, Colonel Musgrave issues an Order from Camp Trichinopoly Plain, fixing the wages of Officers' servants, and ingenuously expressing " his hopes that as the rates allotted for the several Discriptions are Evidently calculated in the most equitable manner both for the Master and Servant, they will be Chearfully received and attended too, (?) the Inconveniency of having (*sic*) an established regulation on this subject, must be felt by all and more Especially by Individuals of the Junior part of the Army."

In July the same year, the Army being in the Field at Coimbatore, an order is issued limiting the number of private servants for which Officers are allowed to draw rations, and certainly the regulations on the subject cannot be called niggardly—

| | |
|------------------------------------|--------------|
| Colonels | 30 servants. |
| Lieutenant-Colonels | 24 „ |
| Majors | 18 „ |
| Captains | 12 „ |
| Subalterns | 6 „ |
| Non-commissioned officer | 1 servant. |

But what would the Financiers and Bimetallists of to-day say to the following Order (before alluded to) issued on Trichinopoly Plain on the 17th May 1790:—

"Colonel Musgrave being Determined to do every Justice to the Troops under his Command, has given directions that the Currency of the Province Shall be restored as near as possible to its' equitable Vallue (*sic*) and therefore Orders that from tomorrow the Porto Nova Pagoda shall pass current for twenty-five Trichinopoly Fanams, The Star Pagoda for twenty-eight Trichinopoly fanams, and a Trichinopoly fanam for twenty-four Cash, (The 'Cash' is used sometimes for the 'Dam') and that in addition thereto both the Porto Nova and Star Pagoda shall rise in equal proportions at such periods as shall hereafter be specified until the former shall pass current for 26 Trichinopoly Fanams and the Latter for 30 after which such rates of Exchange are not to be lowered."

Before leaving the subject of currency, I must quote a truly remarkable Order by the Commander-in-Chief in 1787:—

"Many Subaltern Officers having applied to the Commander-in-Chief, to be appointed to situations of Advantage in the Service in order that they may thereby be enabled to pay their debts, he takes this Public Method of informing the Officers of the Army that the Plea of being in Debt will not be admitted as a Recommendation, but on the Contrary that he will be more ready to encourage those that prove themselves deserving by an Oconomical (*sic*) Conduct such as is proper and Commendable in Soldiers of every Rank. The Commander-in-Chief desires it may be understood at the same time that he will be happy in paying attention in Cases of Real and unmerited Distress."

In those days a Battery of Artillery was apparently attached to each Battalion of Infantry, and Officers were liable to be transferred from the Artillery to the other Arms of the Service, and *vice versa*.

Thus, in September 1786, a Lieutenant Fireworker is removed from the Artillery to be an Ensign of Infantry, and in May 1787 an Officer of the same rank is transferred to the Cavalry.

In the Cavalry they had "Captain Lieutenants" and a Royal Engineer Field Officer is described in Orders as "T. Jones, Esq., Major and Director of Engineers."

In the last Century Medical Officers had not the status which they now enjoy: there were no Surgeon-Major-Generals or Brigade-Surgeon-Lieutenant-Colonels. A Medical Officer is

described in Orders as "Mister William Smith, Surgeon." Apothecaries were styled "Surgeon's Mates," and Native Medical Subordinates were alluded to as "Black Doctors."

But, if sparing of titles in this Department, they were liberal in their allowance of comforts in the Field. Thus we find an Order in 1790 laying down that—

"Madeira Wine will be allowed at the rate of 6 Dozen in the Field Hospital for every 20 men per month, Substituting Port on particular occasions, when Necessary, no spirits to be allowed but for external use and at an average of 1 dozen of Brandy per Month for every 20 Men."

It is to be surmised that not all that good brandy was used for external application, in spite of the above Order, and how Tommy must have enjoyed his Madeira Wine!

There are many instances of curious texts in which the grammar is not always above suspicion. In 1786, the retiring Commander-in-Chief "cannot resign his Post of Commander-in-Chief without previously testifying his sentiments of the Army he has had the honor to Command on this Coast. He therefore takes the opportunity of returning his warmest thanks to both the King's and Companys Troops for their Constant attendance to their Duty, and the laudable emulation every different Corps has constantly shown to excel in good Order and discipline nor is it without sincere regret that he resigns the Command of the Troops, before he has had an Opportunity of serving with them in the Field for which he has doubts not (*sic*) he himself should have acquired great honor, and which with, pleasure, he ventures to predict will hereafter be enjoyed by his Hon'ble Successor."

He further "begs leave to assure them, that when he returns home, he shall embrace every Opportunity of making their meretorious conduct known both to his Majesty and the Hon'ble Company, and shall be happy at all times to promote the honor and Interest of every person with whom he had the pleasure to serve in this Country."

In the Autumn of the same year the following appears in General Orders:—

"Officers Commanding Garrisons, Military Posts, or Stations are on no Account to lend Money, (fancy having any to lend!) or take any concerns in Farms, Tallacks, or Securities for purchasing or selling, or Contracting to Purchase or sell any Articles or Commodities whatsoever in the way of Trade, neither are they to have any dealings of any kind with Zimin-dars, Farmers, Ryotts, or other Dependents, or Officers of the

Revenues, they are on no pretext whatsoever to detach any part of their own force beyond their Respective Quarters, except when required for the execution of Publick Military Services, they are not to punish the people of any discription not Appertaining to their respective Commands without Authority had from the Chief and Council of the District nor are they to seize or confine Any of the Inhabitants unless they are guilty of some Criminal Actions in which case they are to report the same immediately to their respective Chiefs and Councils, or Residents."

In February 1787 there is a curious entry—

"Mr. S——having Requested the Commanding Officer, would make known to the Officers, and Men of the 2nd Brigade, the high sense he entertains of them as a Corps, for their very good appearance, when under arms, and for the honor done him by performing with precision, the several firings, and Manœuvres, of their field Day when he had the honor of being present, to which Major C——begs leave to add his thanks to the Officers and Men of the several Battalions."

In the following year, Officers and other persons were forbidden "to fire off their Fuzees within the Lines of any Cantonments."

In the spring of 1790, Major-General Meadows, the newly appointed Commander-in-Chief, addresses his army in the following spirited language :—

"The Commander-in-Chief, Major-General Meadows commences his acquaintance with that Army of whom he has heard so much and from whom so much is expected, without his entertaining the smallest Suspicion of being disappointed, by informing them that the critical period is probably Approaching when every exertion must be made, every Obstacle Surmounted and the word Difficulty unknown. When the most active Gallantry, the most determined bravery—and the most confirmed Discipline will be required to execute the Arduous but at the same time the Glorious task that is allotted to them not only to serve their Country,—but perhaps to save it.

"All History is full of examples of how little undisciplined numbers are to be feared by the cool, collected, and regulated few—and confident of their behaviour, he has nothing to wish them but Success; in proportion to the Justice of their cause—he recommends it to them in the strongest manner, to be as humane as they are brave to conquer, and spare,—The Commander-in-Chief proposes great pleasure, if ever it can be

done with propriety, in heading them himself—and he has every comfort, if it cannot, in the reflection that he shall at least put them into as good hands, and into those, in whose conduct, and example he has every confidence every expectation—and hopes for every Success.”

A month later appears the following Order from the same gallant Chief:—

“The Commander-in-Chief is never happier than when he has an Opportunity of praising with propriety, wishes to express in this Publick manner in the strongest terms his entire approbation of the Conduct, and Behaviour of the 27th Battalion of Native Infantry in their long march from Chicacote to Wallajahbad and bringing in their Regiment Complete. So uncommon an instance of regularity, order, Alacrity, and Discipline, the General laments that he has not the means of rewarding still stronger, than in words, particularly when he knows, that they are under some disadvantages on account of Stoppages for their families.

“But even praises alone from a Commander-in-Chief, that is not lavish of them, nor ever means to bestow them, but when he is convinced they are deserved, must reflect honor upon, and give pleasure to Captain Stuart and his well regulated Regiment.”

The following month, May, finds him actually in the Field on the eve of what proved to be an arduous and glorious campaign in Southern India,* and he cannot resist the temptation to issue a fresh manifesto which we find dated from Trichinopoly Plain, for some time his head-quarters:—

“The Commander-in-Chief, Major-General Meadows, is happy to find himself at the Head of that Army whose appearance adorns the Country, he Trusts, their Bravery and Discipline will save. An Army that is brave and obedient, that is patient of labour and fearless of Danger, that surmounts difficulties and is full of resources, but above all whose cause is Just, has every reason to hope to be invincible against a cruel, and ambitious Tyrant whose savage Treatment of his prisoners, but too many present have experienced. However should the fortune of war put him into our hands, uncontaminated by his base example let him be treated, with every act of humanity and generosity, and enlightened if possible by a treatment so much the reverse of his Own. To a generous mind a fault Acknowledged is a fault forgot, and an

* Against Tippoo Sahib, 1790-92.

Enemy in one's power is an Enemy no more. That the Army and Commander-in-Chief may understand each other, and the sooner the better, as there is nothing on earth he Idolizes more than a well Disciplined Army, there is nothing on Earth he detests or Dispises more than the reverse, and is therefore determined to make the severest example of the few that may dare to disgrace the Army in General by a Different conduct. No plunderers will be shown the smallest Mercy as he is resolved to make examples severe in hopes to make them seldom, and would think it one of the greatest Blessings he could enjoy to make none at all, among the first wishes of his heart is the Army's reputation and Success."

This is a gem in its way. Our ancestors were certainly more skilled in the use of the sword than in that of the pen.

Six months later, the army being in camp at Periapoleam, there is a sharp and summary order to check stragglers :—

"The Commander-in-Chief is extremely concerned to find that several Soldiers were carried off by the Enemy's Horse yesterday ; and expects that there will be no cause to make similar Reports to Head Quarters on any future occasion.

"The Picquets are expressly ordered to seize any Soldier going beyond them, and to fire upon those they cannot easily apprehend."

As a matter of fact, the general conduct and behaviour of the army, "whose appearance adorned the country," was not altogether what could have been wished, for a few days before the above Order, appears the following :—

"The Desertion of late so base and scandalous when in pursuit of the Enemy that (*sic*) the Commander-in-Chief is determined to make the severest example the first opportunity.

"Any person proved to have been concerned the other day in plundering the Baggage, when the false alarm of Looties, was probably given on purpose, will be executed, and the first Spy detected in Camp will be Hanged."

These Orders were apparently ineffective, for in the spring of the following year, 1791, Lord Cornwallis himself has occasion to fulminate on the subject :—

"Lord Cornwallis is exceedingly concerned to be under the necessity of Declaring in this public manner, that the numerous Complaints that he has received of the outrages committed by Soldiers, European as well as Native, and by the followers of the Army since the Troops have arrived in the present Encampment are shocking beyond description and

although he is convinced that every Officer would be as sensible as himself of the infamy and disgrace which such savage Barbarities must entail on the British name even if the practice had been Confined to the Enemy's Country—Yet they will feel it no small Aggravation of horror when they are informed that the principal sufferers are the Friends and nearest Relations of the Polegars who have been so active in procuring supplies, and in rendering every service in their power to this Army; and who vainly hoped from the arrival of those whom they had been taught to consider as their Friends, to see an end to their persecution and their miseries.

"His Lordship calls in the most serious manner upon every Officer of the Army, and in particular on those Commanding Brigades, to assist him in endeavouring to put a stop to the spirit of Robbery and Plunder which has of late made so rapid and so alarming a progress."

The Officers of those days, though brave to a proverb, were not the gentle tea-drinking young persons who now adorn our Service.

They drank rum and arrack and various other spirituous liquors; they gambled and fought duels; they were not particular in their associates, and not unnaturally, on occasions, one or other of them came to grief.

Thus, in 1787, there is the record of an Ensign dismissed the Company's service for "behaving in a manner unbecoming the character of an Officer and a Gentleman, by associating in a familiar manner with persons of mean professions, and of Discreditable characters, and for Drinking, Riotting and Quarrelling with them on several Occasions at his own house, and at Other places in the Black Town of Madras. *Second charge.*—For challenging Quarter Master D ——— of His Majesty's ———th Regiment of Light Dragoons to Fight a Duel and for affixing a written paper on Sundry publick places in Fort St. George and the Black Town containing expressions tending to excite a Quarrel with the said Quarter Master D——— and upbraiding him for refusing to fight a Duel."

Then the same year Lieutenant A——— is arraigned on the following charges:—

"Behaving in a scandalous and infamous manner such as is unbecoming the Character of an Officer and a Gentleman, in the following instances—*vis.*—

"(1) By enticing away and detaining a Slave Girl named Joanna from the Master and Owner William B———, an

inhabitant of the Black Town of Madras, and denying in a solemn manner to the said B—— that he had not enticed away or detained the said Slave, and for secretly and clandestinely conveying her out of the Town of Madras with the intention to bring her to the Southward.

“(2) By acting in an indecent and outrageous manner at the Dutch Settlement of Sadras, where he offered gross insults to its Governor the Compte de Bylandt and cast unmerited reproaches on the Dutch Nation, and by rioting at the Tavern at Sadras where he Offered a Counterfeit Pagoda in payment knowing the same to be a base coin, and a Counterfeit by all which, just cause was given to the Inhabitants of a Foreign Settlement to hold the name of British Officers in Contempt.”

The Court found the prisoner not guilty of this second charge, but guilty of the first, and dismissed him from the Service.

The Medical Art, or Science, was apparently still in its infancy in the year 1787, and the following will doubtless cause amusement to the gifted successors of the “Hospital Board” at Fort St. George, who committed themselves thus:—

“The Hospital Board when they consider the many advantages that are derived from Inoculation, and that the small-pox has appeared in this neighbourhood, earnestly recommends to the Government that the Troops of this Establishment, who are ignorant of having had the small-pox, and of whom they suppose there is a Great proportion, be Immediately put on a proper diet, and propose the following:—

For Breakfast.

“ Butter, Milk and Rice.

Dinner.

“ Mutton Broth with Greens, and Mutton with Bread or rice.

Supper.

“ Thick Congee and Sugar.

“ Pork, Fish, Butter, Salted Meats, and Spirituous liquors should be rigidly abstained from. Under such diet it has been found by much experience amongst Europeans, a Mild appearance of the Disease is Obtained.”

It is somewhat obscure why they “wanted to obtain an appearance of the disease” in any form, but the Government agreed with them, and passed the diet above set forth.

I have already alluded to the drill of those days as being “sticky” and slow, but really its uselessness was astounding. Every manœuvre and “firing” for a Field Day was minutely

detailed in previous orders. There was no indication of an enemy, or apparently any attempt made to move the troops off their Parade-ground. The manœuvres to be executed, which were of the most childish description, had to be learnt off by heart, by the Officers, and were set going by a system of drum signals, such as "ruffles," "flams," "long rolls," and the like. It would occupy half a dozen of these pages to transcribe literally one of these curious details. I will therefore only give an extract from the General Order detailing the manœuvres for a Review at Wallajahbad in March 1788 before the Commander-in-Chief, Sir A. Campbell:—

"Firings and Manœuvres.

"Officers having taken post for Action, the Commandants of Battalions will order their respective Corps to "prime and Load" when the whole have shouldered,

"The Commanding Officer of the line will order the Drums of the 4th Battalion of European Infy to beat the preparative, and the Field Pieces of that Battalion will fire one round each, as a Signal for the Firings to commence: all the other Battalions will repeat the same Signal, and when the 2nd Field Piece of each hath Fired, the Musquetry will commence 2 Rounds by Alternate Platoons from the right of Battalions. Battalions will then fire in succession from Right to Left. That is to Say—the Right Platoon of the 2nd Company will make ready immediately after the Right Platoon of the 1st Company has Fired. The Right Platoon of the 3rd Company will make Ready immediately after the Right Platoon of the 2nd Company, and Present when the Right Platoon of the 2nd has fired, and all the Right Platoons of the other Companies will do the same in succession from Right to Left. When the Right Platoon of the 1st Company has loaded—the Left Platoon of the 1st Company will Fire and all the Left Platoons of Companies from Right to Left in succession as soon as their Respective Right Platoons have loaded and continue to do so alternately until 2 Rounds from each Platoon are Discharged, on which occasion Officers Commanding will order the Drums of their Respective Battalions to beat the General for all Firings to Cease."

I really cannot go on. There are four more quarto pages of this, to which "Peter Piper picked a peck of pickled pepper" is mere child's play. We can afford to pity the Officers of 1788, but can hardly imagine, if they had the wits to learn off all that stuff by heart, how it was none of them

could devise a simpler and more practical form of drill. And yet they were fine soldiers and won grand victories.

In conclusion, there is in these old books a very complete record of crime in the Army a hundred years ago, and it is satisfactory to note that in this respect we have greatly improved.

Desertion and Drunkenness were the chief misdemeanours in times of peace ; but in war time, as we have seen, to these were added plundering and all kinds of cruelty and oppression practised on the friendly people of the country in which the Armies were serving, as well as general insubordination.

The punishments then in vogue were very terrible in their severity.

In 1786, for a simple act of drunkenness, which to-day would be punished by a small fine, a Matross of Artillery at Wallajahbad was sentenced to 100 lashes, with a cat-o'-nine tails; and the cat of 1786 was a very different machine to the toy thing of whip-cord now in use (or rather disuse) ; it had a split bullet at the end of each tail that cut into the flesh like a razor, and it was a strong man who could stand 50 lashes, to say nothing of 100, without permanent injury to his health. But we find in these records men sentenced to 1,000, 1,500 and even 2,000 lashes, and the sentences confirmed and carried out. There is no mention made of what became of the culprits, but it must be concluded that most of them died under their torture, or very shortly afterwards.

Death was the punishment for Desertion, and a great number of men suffered the extreme penalty in the last lustrum of the eighteenth century. They were usually shot. The first case of hanging for this offence occurs in November 1788.

In January 1773, seven European soldiers were tried by a General Court Martial for crimes not specified, and the following is the sentence of the Court as published in General Orders:—

“ Fort St. George, 12th February 1773.

“ The General Court Martial which sat on the 19th of January whereof Major A ——— F ——— was President is dissolved and the following sentences approved of:—

“ *Sentence.*—The Court having duly Considered the Evidences for and against the Prisoners Hendrick White, Francis Neagles, John Dubbleman and Andrew Brown are of Opinion that they are Guilty of the Crimes laid to their Charges in Breach of the 1st Article of the 5th Section of the Articles

of War, do therefore Sentence that one of them Shall be Shott to Death in the usual Manner. That they shall throw Dice at the place of Execution upon a Drum Head & he that throws the least Number shall be the Man to Die.

"The Court do also find the Prisoners Jacob Vanderburg and Francis Franhugson Guilty of the Crime laid to their Charge but in Consideration of their verry Short time of Service, They never having had the Articles of War read to them, or being Cloathed or Regimented, Do only sentence them to receive Each 500 Lashes on their Bare Backs with a Catt of Nine Tails by the Drummers of the Garrison.

"The Court is under a Necessity of Acquitting the Prisoner Patrick Craney for want of Sufficient Evidence.

"The President and Council approve of the Sentence of the Court Martial pass'd on Hendrick White, Francis Neagles, Jno. Dubbleman and Andrew Brown, as also of the Sentence pass'd on Jacob Vanderburg & Francis Franhugson, and order the same to be Carried into Execution on Tuesday the 10th Instant. With respect to the Sentence pass'd on Patrick Craney the President & Council disapprove thereof."

Truly Tempora mutantur, et nos mutamur in illis

SOME ACCOUNT OF THE ORGANIZATION, EQUIPMENT, ETC., OF THE IMPERIAL SERVICE CAMEL CORPS, BIKANIR.

BY CAPTAIN H. V. COX, INSPECTING OFFICER, IMPERIAL SERVICE
INFANTRY, RAJPUTANA.

As this regiment is the only one of its kind in India, the following brief description of it may be interesting to the readers of the United Service Journal :—

The greater part of the Bikanir State, which comprises 22,000 square miles, is a sandy and desert country, thinly populated, its villages being small and scattered. The rainfall averages about eleven inches a year. Wells are in many places 300 feet deep, and consequently most expensive to construct. The cost of making a well is about fifteen thousand rupees.

The agricultural part of the population depend entirely on one crop, *viz.*, the rainy season crop, and if the rains fail, as they frequently do, temporary emigration is their only resource.

Life in such a country is, at best, a hard one ; but the result is the production of a race of men who think little of hardship, are independent and self-reliant, and to whom long distance journeys on a camel or on foot are every day occurrences. It is not uncommon for a village to have to send camels ten miles for its daily water-supply. The camel represents the carrying power of the country, and is used and understood as he probably is nowhere else in the world.

When, therefore, the Bikanir Durbar offered the resources of the State to Government for Imperial defence, it was felt that their contribution could take no better form than the raising and up-keep of a camel corps : the riders to be recruited from the fine fighting material which this wild country produces.

The regiment was first raised in 1889-90, but did not reach its full strength, *viz.*, 500 men and 500 camels, till 1893.

Great difficulty was at first experienced in getting suitable officers. The Thakurs of the State objected to placing themselves, or members of their families, under military discipline,

described in Orders as "Mister William Smith, Surgeon. Apothecaries were styled "Surgeon's Mates," and Native Medical Subordinates were alluded to as "Black Doctors."

But, if sparing of titles in this Department, they were liberal in their allowance of comforts in the Field. Thus we find an Order in 1790 laying down that—

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* *Asiatic Researches* Vol. 5. 1792-93.

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Then the same year Lieutenant A—— is arraigned on the following charges:—

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inhabitant of the Black Town of Madras, and denying in a solemn manner to the said B—— that he had not enticed away or detained the said Slave, and for secretly and clandestinely conveying her out of the Town of Madras with the intention to bring her to the Southward.

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"Butter, Milk and Rice.

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I have already alluded to the drill of those days as being "sticky" and slow, but really its uselessness was astounding. Every manœuvre and "firing" for a Field Day was minutely

described in Orders as "Mister William Smith, Surgeon." Apothecaries were styled "Surgeon's Mates," and Native Medical Subordinates were alluded to as "Black Doctors."

But, if sparing of titles in this Department, they were liberal in their allowance of comforts in the Field. Thus we find an Order in 1790 laying down that—

"Madeira Wine will be allowed at the rate of 6 Dozen in the Field Hospital for every 20 men per month, Substituting Port on particular occasions, when Necessary, no spirits to be allowed but for external use and at an average of 1 dozen of Brandy per Month for every 20 Men."

It is to be surmised that not all that good brandy was used for external application, in spite of the above Order, and how Tommy must have enjoyed his Madeira Wine!

There are many instances of curious texts in which the grammar is not always above suspicion. In 1786, the retiring Commander-in-Chief "cannot resign his Post of Commander-in-Chief without previously testifying his sentiments of the Army he has had the honor to Command on this Coast. He therefore takes the opportunity of returning his warmest thanks to both the King's and Companys Troops for their Constant attendance to their Duty, and the laudable emulation every different Corps has constantly shown to excel in good Order and discipline nor is it without sincere regret that he resigns the Command of the Troops, before he has had an Opportunity of serving with them in the Field for which he has doubts not (sic) he himself should have acquired great honor, and which with, pleasure, he ventures to predict will hereafter be enjoyed by his Hon'ble Successor."

He further "begs leave to assure them, that when he returns home, he shall embrace every Opportunity of making their meretorious conduct known both to his Majesty and the Hon'ble Company, and shall be happy at all times to promote the honor and Interest of every person with whom he had the pleasure to serve in this Country."

In the Autumn of the same year the following appears in General Orders:—

"Officers Commanding Garrisons, Military Posts, or Stations are on no Account to lend Money, (any having any to lend) or take any concerns in Farms, Talacks, or Securities for purchasing or selling, or Contracting to Purchase or sell any Articles or Commodities whatsoever in the way of Trade, neither are they to have any dealings of any kind with Zemindars, Farmers, Ryotts, or other Dependents, or Officers of the

Revenues, they are on no pretext whatsoever to detach any part of their own force beyond their Respective Quarters, except when required for the execution of Publick Military Services, they are not to punish the people of any discription not Appertaining to their respective Commands without Authority had from the Chief and Council of the District nor are they to seize or confine Any of the Inhabitants unless they are guilty of some Criminal Actions in which case they are to report the same immediately to their respective Chiefs and Councils, or Residents."

In February 1787 there is a curious entry—

"Mr. S——having Requested the Commanding Officer, would make known to the Officers, and Men of the 2nd Brigade, the high sense he entertains of them as a Corps, for their very good appearance, when under arms, and for the honor done him by performing with precision, the several firings, and Manœuvres, of their field Day when he had the honor of being present, to which Major C——begs leave to add his thanks to the Officers and Men of the several Battalions."

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detailed in previous orders. There was no indication of an enemy, or apparently any attempt made to move the troops off their Parade ground. The manœuvres to be executed, which were of the most childish description, had to be learnt off by heart, by the Officers, and were set going by a system of drum signals such as "refiles," "flams," "long rolls," and the like. It would occupy half a dozen of these pages to transcribe literally one of these curious details. I will therefore only give an extract from the General Order detailing the manœuvres for a Review at Wallahabad in March 1788 before the Commander-in-Chief, Sir A. Campbell—

"Firings and Manœuvres.

"Officers having taken post for Action, the Commandants of Battalions will order their respective Corps to "prime and Load" when the whole have shouldered.

"The Commanding Officer of the line will order the Drums of the 4th Battalion of European Infantry to beat the preparative, and the Field Pieces of that Battalion will fire one round each, as a Signal for the Firings to commence: all the other Battalions will repeat the same Signal, and when the 2nd Field Piece of each hath fired, the Musquetry will commence 2 Rounds by Alternate Platoons from the right of Battalions. Battalions will then fire in succession from Right to Left. That is to Say—the Right Platoon of the 2nd Company will make ready immediately after the Right Platoon of the 1st Company has fired. The Right Platoon of the 3rd Company will make Ready immediately after the Right Platoon of the 2nd Company, and Present when the Right Platoon of the 2nd has fired, and all the Right Platoons of the other Companies will do the same in succession from Right to Left. When the Right Platoon of the 1st Company has loaded—the Left Platoon of the 1st Company will fire and all the Left Platoons of Companies from Right to Left in succession as soon as their Respective Right Platoons have loaded and continue to do so alternately until 2 Rounds from each Platoon are Discharged, on which occasion Officers Commanding will order the Drums of their Respective Battalions to beat the General for all Firings to Cease."

I really cannot go on. There are four more quarto pages of this, to which "Peter Piper picked a peck of picked pepper" is mere child's play. We can afford to pity the Officers of 1788, but can hardly wonder at it, who had the wits to learn off all that stuff by heart, how it was none of them

could devise a simpler and more practical form of drill. And yet they were fine soldiers and won grand victories.

In conclusion, there is in these old books a very complete record of crime in the Army a hundred years ago, and it is satisfactory to note that in this respect we have greatly improved.

Desertion and Drunkenness were the chief misdemeanours in times of peace; but in war time, as we have seen, to these were added plundering and all kinds of cruelty and oppression practised on the friendly people of the country in which the Armies were serving, as well as general insubordination.

The punishments then in vogue were very terrible in their severity.

In 1786, for a simple act of drunkenness, which to-day would be punished by a small fine, a Matross of Artillery at Wallajahbad was sentenced to 100 lashes, with a cat-o'-nine tails; and the cat of 1786 was a very different machine to the toy thing of whip-cord now in use (or rather disuse); it had a split bullet at the end of each tail that cut into the flesh like a razor, and it was a strong man who could stand 50 lashes, to say nothing of 100, without permanent injury to his health. But we find in these records men sentenced to 1,000, 1,500 and even 2,000 lashes, and the sentences confirmed and carried out. There is no mention made of what became of the culprits, but it must be concluded that most of them died under their torture, or very shortly afterwards.

Death was the punishment for Desertion, and a great number of men suffered the extreme penalty in the last lustrum of the eighteenth century. They were usually shot. The first case of hanging for this offence occurs in November 1788.

In January 1773, seven European soldiers were tried by a General Court Martial for crimes not specified, and the following is the sentence of the Court as published in General Orders:—

“Fort St. George, 12th February 1773.

“The General Court Martial which sat on the 19th of January whereof Major A ——— F ——— was President is dissolved and the following sentences approved of:—

“*Sentence.*—The Court having duly Considered the Evidences for and against the Prisoners Hendrick White, Francis Neagles, John Dubbleman and Andrew Brown are of Opinion that they are Guilty of the Crimes laid to their Charges in Breach of the 1st Article of the 5th Section of the Articles

of War, do therefore Sentence that one of them Shall be Shott to Death in the usual Manner. That they shall throw Dice at the place of Execution upon a Drum Head & he that throws the least Number shall be the Man to Die.

"The Court do also find the Prisoners Jacob Vanderburg and Francis Franhugson Guilty of the Crime laid to their Charge but in Consideration of their verry Short time of Service, They never having had the Articles of War read to them, or being Cloathed or Regimented, Do only sentence them to receive Each 500 Lashes on their Bare Backs with a Catt of Nine Tails by the Drummers of the Garrison.

"The Court is under a Necessity of Acquitting the Prisoner Patrick Craney for want of Sufficient Evidence.

"The President and Council approve of the Sentence of the Court Martial pass'd on Hendrick White, Francis Neagles, Jno. Dubbleman and Andrew Brown, as also of the Sentence pass'd on Jacob Vanderburg & Francis Franhugson, and order the same to be Carried into Execution on Tuesday the 16th Instant. With respect to the Sentence pass'd on Patrick Craney the President & Council disapprove thereof."

Truly Tempora mutantur, et nos mutamur in illis!

SOME ACCOUNT OF THE ORGANIZATION, EQUIPMENT, ETC., OF THE IMPERIAL SERVICE CAMEL CORPS, BIKANIR.

BY CAPTAIN H. V. COX, INSPECTING OFFICER, IMPERIAL SERVICE
INFANTRY, RAJPUTANA.

As this regiment is the only one of its kind in India, the following brief description of it may be interesting to the readers of the United Service Journal :—

The greater part of the Bikanir State, which comprises 22,000 square miles, is a sandy and desert country, thinly populated, its villages being small and scattered. The rainfall averages about eleven inches a year. Wells are in many places 300 feet deep, and consequently most expensive to construct. The cost of making a well is about fifteen thousand rupees.

The agricultural part of the population depend entirely on one crop, *viz.*, the rainy season crop, and if the rains fail, as they frequently do, temporary emigration is their only resource.

Life in such a country is, at best, a hard one ; but the result is the production of a race of men who think little of hardship, are independent and self-reliant, and to whom long distance journeys on a camel or on foot are every day occurrences. It is not uncommon for a village to have to send camels ten miles for its daily water-supply. The camel represents the carrying power of the country, and is used and understood as he probably is nowhere else in the world.

When, therefore, the Bikanir Durbar offered the resources of the State to Government for Imperial defence, it was felt that their contribution could take no better form than the raising and up-keep of a camel corps : the riders to be recruited from the fine fighting material which this wild country produces.

The regiment was first raised in 1889-90, but did not reach its full strength, *viz.*, 500 men and 500 camels, till 1893.

Great difficulty was at first experienced in getting suitable officers. The Thakurs of the State objected to placing themselves, or members of their families, under military discipline,

and thought the wearing of uniform distinctly derogatory to their dignity, and suitable recruits were not forthcoming for the rank and file.

Gradually, however, it came to be realized that the position of an officer in the local corps carried with it many advantages, and promised a gentleman's career to young men of good, though often poor, families.

The young Maharaja, then only a boy, also began to take great interest in the corps, of which he is Colonel ; and now it is not too much to say that suitable officers could be found for twice the number the corps requires.

Recruits of the best kind are now plentiful.

At the present time the regiment is Bikanir's most popular institution. From the Maharaja downwards all are proud of it and interested in its doings and welfare.

Organization.—The regiment is formed of six companies ; a subadar and a jemadar, four havildars and four naicks to each company.

The regimental staff are the commandant, two assistant (or wing) commandants, the adjutant, and the quartermaster.

The present commandant, Rao Bahadur Thakur Dip Singh, has just returned from England, where he formed one of the Queen-Empress Jubilee Guard from Imperial Service Troops.

The regiment is mounted on the Silladar system, the camel price being Rs. 110 : the camels are the very best of their kind ; their average age is about nine years. The saddles and furniture are the property of the State.

The sowar's pay is Rs. 19. The men are fed from company messes.

Class.—The majority of the rank and file are Rahtor Rajputs, with some Mussulmans and a few Sikhs. All but the last named are natives of the State.

Equipment, etc.—The men are equipped with the Martini-Henry rifle, which is carried in a bucket in front of the near side of the saddle. They have the sword bayonet and brown leather belt and pouches as in the native army.

They carry in marching order seventy rounds of ammunition on their persons and eighty rounds in their saddle bags ; fifty rounds (the regimental reserve) is carried on the ammunition camels.

The saddles are built on the lines of the native saddle of the country, but of seasoned wood, strengthened with steel

arch and bars, and the riding pad is covered with stout brown leather. They are double seated, *i.e.*, can carry two men, one in front (who drives) and one behind. Thus the regiment could, if required, pick up 500 British soldiers for a forced march. The camel is driven by the nose in the usual way. Just behind the rider's legs two brown leather saddle bags are slung. In these, three days' rations for man and camel (grain) and eighty rounds of ammunition are carried, and below the second saddle are two canvas water "mussuks" containing, when full, four and three quarter gallons. In rear of the second saddle, on the projecting ends of the saddle bars, is a brown leather valise, carrying kit, blanket, etc.

The weight carried by the camel, including his rider in full service order and with three days' rations, is four maunds and fourteen seers.

For a cold climate the camels have jhools made (locally) of camel's hair. These would be carried under the saddles.

The excellence of the equipment and saddlery is proved by the fact that the regiment has had it for six to seven years, and it is now in first class order.

The officers' equipment is similar to that of the rank and file. They are armed with sword and revolver.

Dress.—The full dress of the regiment is, for the rank and file, of khaki serge, with scarlet facings and collar, khaki breeches, putties, and ankle boots. They wear a red loongi, with the Rajput turra (or tinsel plume) in gold above it.

Officers wear a "kurta" of khaki cloth, with scarlet collar and facings, gold lace on collar, front, and sleeves, and with broad gold chain lace shoulder straps. Their loongi is red and gold. The sword is carried in a gold lace Sam Browne belt. They have brown velvet cord breeches, putties, and ankle boots. The undress of the corps is khaki.

Drill, etc.—The regiment manoeuvres, when mounted, in single rank.

It is found that the camel, when in regular work, adapts himself quickly to drill. Camels are often put into the ranks three days after they are purchased. Camels, however, vary in pace more than horses, and during a rapid march constant watching of the camels is necessary to prevent straggling.

The advanced-guard, reconnoitring, and screening formations of the regiment are somewhat similar to those of cavalry, but the advanced and flanking parties in support of scouts are never less than twelve men together. This is necessary, as they depend on rifle fire when attacked.

In attack the regiment dismounts at from 3,000 to 2,500 yards from the enemy's position according to circumstances, ground, etc., and attacks as an infantry battalion, leaving a guard with the camels. Here they have great advantage over mounted infantry or cavalry acting dismounted, as the camels lead in a crowd remarkably easily and quietly, so that usually two men per section of twenty camels or eight men per company are all that need be left to look after them, or to bring them up when required. This is, of course, exclusive of the camel guard, which is generally half a company.

If threatened by cavalry, the regiment forms "zareebas," the camels lying down heads inwards, and the men firing from inside over their camels' backs.

The time from column of route till the whole regiment is formed in two echeloned "zareebas" of half battalions and the first volley fired is usually ninety seconds.

The camels stand fire perfectly, and do not attempt to move when cavalry charge close up to the "zareebas."

Tactical use of the corps.—The regiment would probably be found to be most useful—

- (a) as a support to a cavalry division or brigade on reconnoitring duty;
- (b) as giving the commander of a force the power of striking, with a considerable number of rifles, a blow far beyond the usual marching distance of infantry. It is estimated that the regiment could do eighty miles in twenty-four hours, or fifty miles a day for seven days;
- (c) as enabling a wide flank or turning movement to be very rapidly made;
- (d) by a rapid forced march to cut across or raid an enemy's line of communications, destroy a railway line, or seize a convoy.

For the last three operations [(b), (c) and (d)] it should be remembered that the regiment could carry double, which represents a fighting force of about 850 rifles (half British soldiers and half Rajputs).

On such an occasion the sowar's kit would be considerably lightened.

The drawback to the general tactical utility of the corps is that the camel does not adapt himself to any sort of country, and so, if it is to do good work for any length of time, the camel corps must be carefully placed, *i.e.*, must be moving in a country suited to the animal.

Camels.—Bikanir has always been famous for its breed of fast sowari camels. The true Bikaniri riding camel is as different in appearance and action from the camel ordinarily to be seen in India as a thorough-bred horse is from a Norfolk trotter.

He is not a big camel, but with an unmistakeable "blood" look all over, the head lean, and eyes large and prominent, skin fine and soft, and the action long, low, and easy.

For some years past the breeding of such camels has been somewhat neglected; but the State breeding establishment is now in charge of the officer commanding the Camel Corps (the present officer commanding is probably the best judge of a camel in India), and the breed will rapidly recover itself.

Experience has proved that the stallion camel is the best for regimental purposes. When in work they do not fight, while, as with an Arab horse, well-bred ones are rarely "must."

The female and gelded camel lack stamina, and lose condition rapidly under hard work.

The transport camels of the corps are provided partly from the State Shutar Khana and partly from registered (and branded) camels in the district camel police.

The full strength is eighty-three camels.

They are ridden in service order by the regimental followers.

Two characteristics of the regiment deserve notice—

The first is the good shooting of the corps.

Rajputs are naturally fond of a gun, and (in Native States) carry arms as soon as they are strong enough to do so. The men look on musketry as their most pleasant duty, and a bad shot is looked down upon by all his comrades. The corps has shot well from its formation; it has this year 303 marksmen and seven third class shots, and its collective firing is the best of the Imperial Service Troops. Its regimental team has always distinguished itself at the annual rifle meeting for Imperial Service Troops at Meerut.

The other noticeable thing is the soldierly spirit which pervades all ranks, which would be invaluable on service, and which goes far to counteract the want of education in peace time and for instructional purposes. Proud of their race, devoted to their young Maharaja, and conscious that he is deeply interested in his corps, with a thorough knowledge of the animals they ride, and good shots, they have great possibilities.

When the time comes it will be difficult to find a body of soldiers from the Native States more ready and keen to assist in the defence of the Queen-Empress's Eastern dominions than the Ganga Rissala* from the Bikanir

* The local name for the Corps—after His Highness Ganga Singh, the present Maharaja.

Desert.

AN ABSTRACT OF THE FIELD MEDICAL SYSTEMS OF THE GERMAN, FRENCH, AND AUSTRIAN ARMIES.

BY SURGEON-CAPTAIN C. H. MELVILLE, A.M.S.

PREFACE.

In making a translation or rather a summary of the different systems adopted in the German, French, and Austrian Armies for the working of the medical services in the field, I have been actuated by the idea that such a summary might be of use to my brother officers as showing how the problems that will be set before us on service have already been solved by the medical administrations of other armies. Since each of these has of necessity approached the subject from a stand-point conditioned by the national and local peculiarities of its environment, a general view of all three may be expected to give useful hints to the officers of a service which has, by the nature of its being, to work under conditions of unending variety. I venture to hope also that such a summary may be of interest and even of use to officers of other branches of the service as giving them an idea of the part taken by the medical department in the operations of the larger continental armies. I have ventured in but a few places to give expression to my own opinions on the subject, and when doing so have enclosed such passages in brackets. The books to which I am chiefly indebted are—in addition to the field medical regulations of the different services—Robert's *Traité des Manœuvres d'Ambulance* and Cron's *Feld Taschenbuch für k. und k. Militärärzte*. This last book, though applying primarily to the Austrian service and intended as a hand-book for the medical officers of that army, is full of useful information on all points of the work of a medical officer in the field, and would be a useful book for the medical officers of any army to carry with them on service. I have also drawn largely from the excellent paper *Der Sanitätsdienst bei einer Infanterie-Truppen-Division im Felde* by Major im General Stabscorps Alfred Hausenblas, which appeared in *Streffleur's Zeitschrift* for November 1894.

Though discussing in this paper merely the medical services with the field army, I have thought fit in the Introduction to

touch briefly on the general features of an ambulance system as a whole, and the relation which the services with the field army bear to those in rear. In the chapter on systems of evacuation I have also trespassed beyond the just limits of my subject so as to give a clearer view of the connecting links of the two great divisions of the field medical system.

Appendices showing the relative distribution of medical establishments, and also describing the various forms of tents and huts used for field hospitals, and the prescribed forms of improvised bedsteads, are added.

INTRODUCTION.

1. *Definition of an ambulance system.*—An ambulance system may be defined as a system which aims at the removal during war of the sick or wounded man from among his healthy or uninjured comrades, his treatment, his return to the army as fit for further service, or, if necessary, his complete removal from the theatre of war as unfit, and includes all those accessory services which conduce to the attainment of the above objects.

2. *Divisions of an ambulance system.*—Any ambulance system may be divided into two main sections, *viz.*—

- (1) the medical services with the field army ; and
- (2) the medical services in rear of the field army.

These two sections differ from each other in that, whereas the former constitutes an integral part of the field army and keeps always in the closest possible touch with that army, the latter constitutes an integral part of the services on the lines of communications, and, as regards the medical department generally, keeps up the connection between the fighting force and the home country.

3. *Distinctive points of these.*—These two sections differ also in an important manner in function. The two chief functions of an ambulance system may be termed (a) removal and (b) treatment.

At the very front, close to the enemy, removal is the more important: the first idea must be to remove the unfit man from among the fit men in the interests of both. Not only is it impossible to treat him there, but he is an encumbrance. Therefore we shall find that the most advanced of the medical services are concerned mainly with removal and with treatment only in so far as it is necessary to save life, or to assist or make possible removal. As we pass further to the rear, we come to a point where treatment becomes the

more important, because removal is not now so urgently necessary. Treatment is now carried out solely with a view to the interests of the patient; removal now only affects those who are not again likely to be able to serve in the ranks. The point where the change occurs, where removal from being the primary becomes the secondary function, marks the transition from the medical services with the field army to those in rear of the field army. This transition is marked in all the three services to which this book refers by the unit called a field hospital. This unit belongs at one time to the services with the field army, at another to those in rear; it passes from one to the other, when, owing to an influx of patients, it becomes entirely devoted to treatment, or when, owing to relief by a more permanent unit, it is again able to accompany the fighting force.

4. *Military difference.*—Practically, from a purely military point of view, the distinction between the two sections of the system lies in the fact that the medical services with the field army are under the command of the generals commanding divisions, army corps, or armies, as the case may be; those in rear under the command of the general officers commanding the lines of communications.

CHAPTER I.

THE MEDICAL SERVICES WITH THE FIELD ARMY.

5. *Synonyms.*—German, *Sanitäts-dienst bei der Feld Armee*. French, *Service de l'avant*. No particular designation in the Austrian Army.

6. *Composition of.*—The medical services with the field army consist of several units, which may be classed as follows:—

- (1) Those units which belong, or are for the duration of the campaign attached, to the various corps, *viz.*, battalions, regiments, groups of batteries, etc.: these are called corps medical units, or, briefly, corps units.
- (2) Those units which belong, or are for the duration of the campaign attached, to the various larger organisations, or aggregates of corps, divisions, army corps, and armies. These are bearer companies and field hospitals in the German and French Armies; divisional sanitary units, and in a limited sense, field hospitals in the Austrian Army.

7. *Peculiar position of field hospitals.*—Field hospitals in all services occupy an indeterminate position. In the German and French Armies they belong originally to army corps or divisions, and are, for purposes of administration, under the general officers commanding those bodies. In the Austrian service they belong originally to, and are, for purposes of administration, under the authority of the general officers commanding the lines of communications. In the first named armies they may, owing to the exigencies of the service, pass temporarily under the orders of the general officers commanding the lines of communications. In the last named, they may, for the purposes of the campaign, be attached to army corps or divisions, and while so attached they come under the general officers commanding these organisations.

8. *Divisional sanitary unit (Austrian).*—The divisional sanitary unit of the Austrian Army is a unit peculiar, so far as I know, to that service (its nearest analogue is the field hospital of the Indian Army); it represents the bearer company, and, to a certain extent, the field hospitals of the German and French Armies.

9. *Arrangement in parallels.*—For convenience of description, the medical services with the field army may be divided into three parallels, having regard to their work in the field—

The first parallel consists of the corps units.

The second, of the bearer-companies.

The third, of the field hospitals.

The Austrian divisional sanitary unit represents the second and part of the third parallels. This succession represents the order in which they come into action, and I venture to think that this arrangement is somewhat clearer than the ordinary division into first and second lines of assistance.

10. *Administration.*—The medical services with the field army are administered by the principal medical officers of armies, army corps, and divisions. These officers are on the staffs of the general officers commanding those bodies, and are at the same time the direct commanding officers of the medical establishments in the organisation to which they belong. Their disciplinary powers correspond to those of brigade, regimental, and battalion commanders, respectively. Their duties need not be lengthily detailed. Those of a principal medical officer of an army are to secure the co-operation of the medical services in the various army corps

under him. His authority extends over the lines of communications of the army, and his most important function (apart from matters of hygiene, which do not concern us here) is to regulate the flow of evacuation from front to rear.

Those of a principal medical officer of an army corps are to regulate the work in the field of the various units under him; he is more closely connected (in the French and German Armies at least) with the medical services during an action, and is responsible for the bringing up and posting of the field hospitals and the third bearer company. In the Austrian Army, owing to the divisional administrative system, his connection with the field work is less direct; and his most important duty is to control the evacuation of wounded from the divisional sanitary units to the formations further to the rear.

The principal medical officer of a division directly superintends the work of the corps units and the divisional bearer company. He is responsible for the posting of the main dressing station, and superintends the work of that and of the various regimental dressing stations.

In the Austrian Army he is responsible for the posting of the aid and dressing stations of the divisional sanitary unit and generally superintends the work of those stations.

CHAPTER II.

CORPS MEDICAL UNITS.

11. *Synonyms*.—German and Austrian, *Sanitäts-dienst beider Truppen*. French, *Service Régimentaire*.

12. *Object of*.—In order to ensure that from the moment that the soldier on service feels himself ailing or unfit for duty, whether by reason of sickness or wounds, he should be able to procure medical assistance, with a view either to his early return to duty or to his removal from the ranks as an encumbrance, a certain medical establishment is attached in all armies, to all corps in the field, whether as an integral part of the corps or merely for the duration of the campaign.

The scale on which this establishment is calculated is given in Appendix A.

13. *Composition of establishment*.—It consists in all cases of medical officers, hospital or dressing orderlies (German, *Lazarethgehulfen*; French, *Infirmiers Régimentaires*; Austrian, *Bandagenträger*, and stretcher bearers (German, *Hulfskrankenträger*).

ager; French, *Brancardiers Régimentaires*; Austrian, *Blerssieten-träger*).

14. *Equipment*.—A certain equipment is also allowed to each corps, which varies in the different services; it may be divided into personal equipment and regimental equipment.

Personal equipment consists of—

- (1) the identification label; and
- (2) the first field dressing.

15. *The identification label*.—The identification label of the German Army (*Erkennungsmarke*) is made of metal, and is either oval in shape or oblong with rounded corners. In the former case it has two, in the latter one, hole, through which a cord may be passed; it is worn round the neck next the skin. On the label the wearer's regiment, company, and number are engraved. These labels are kept ready in time of peace, and served out on mobilization to every soldier, whether belonging to the field force or to the stationary units in the rear. It is laid down in regulations that they are not to be removed from the dead at the regimental dressing stations; they should, however, be removed at the main dressing stations (and always before burial), and forwarded to the corps of deceased with their small books and a written statement of the cause of death and the place of interment.

In the French service this label (*Plaque d'identité*) is oval in shape and made of German silver. It has a hole at one end only and is worn round the neck next the skin as in the German Army. It bears on one side the wearer's name and the year of his conscription; on the other the name of his district and his number. It is removed from the body by the burial party, and forwarded with the small book of the deceased to the accounts branch.

The Austrians have no identification label: the *Legitimations-Blätter* is, however, a personal document used in the same way.

The endless confusion that may occur in the absence of some such means of identification was exemplified in the Crimean War, where, according to Sir Evelyn Wood, a captain of a transport buried in one trip, between the Crimea and the Bosphorus, seventy men, without being able to record their names, or even those of their corps.

16. *The first field dressing*.—The first field dressing varies in composition in the different armies. In the German (*Verbindzeug*) it consists of a piece of linen about a foot square, a three-cornered bandage of such size that four can be

cut out of a square metre of shirting, and 15 grammes of Charpie : the whole is wrapped in piece of oil-cloth, measuring 9" x 8" to form a packet about 4" by 3". These materials are kept in readiness in time of peace, the packets being made up on mobilization. The dressing is carried in the left trouser pocket of the infantry, in the front fold of the jacket in Hussar and Uhlan regiments, and in the coat tail pocket of other corps.

The French dressing (*Paquet Individuel de Pansement*) consists of some tow wrapped up in gauze, a compress, and some water-proof cloth : the whole being made up into a packet, on the inner and outer envelopes of which directions for use are printed.

The Austrian dressing (*Verbandpäckchen*) is composed of two antiseptic pads, covered with water-proof material, a bandage 4 metres long, or a triangular bandage, and two safety pins : the whole is enclosed in lead-foil, which should not be opened till just before use. Its position varies with the different branches of the service.

17. *Regimental medical equipment*.—This varies much in the different services, and it may be of advantage to briefly indicate the items of which it is composed in each, though it would be beyond the scope of the present work to go into details in the matter.

18. *German regimental medical equipment*.—In the German Army we find :—

I.—For every infantry or Jäger battalion or cavalry regiment—

One medical store cart (*Medizinwagen, Medisinkarre*).

Two bandage havresacks (*Bandagentornistar*).

Four pairs hospital assistant's pouches (*Lasarethgehülffentaschen*).

II.—For every battery or Pioneer company—

One medical and surgical chest (*Medizin-und Bandagenkasten*).

One bandage havresack.

One pair hospital assistant's pouches.

III.—For every ammunition column—

One medical and surgical chest.

The medical and surgical chest corresponds very fairly to our field medical panniers, but there is a larger supply of drugs and a smaller supply of dressing material (a variation, it may be remarked, in the wrong direction).

The medical store wagon is a very elaborate affair, containing a larger supply of drugs and dispensary stores

than seems at all necessary. Seventy-three different drugs are provided, weighing by themselves 38 pounds. The forms in which they are provided are also unsuitable, being very unportable. The cart also carries the battalion stretchers and the kits of the medical officers.

The bandage havresacks may be compared to our surgical havresacks, but are somewhat more fully furnished.

The hospital assistant's pouches correspond to our field medical companions, but do not appear to be so fully or so well equipped.

19. *French regimental medical equipment.*—In the French Army we find:—

I.—For every battalion of infantry or group of four field batteries—

(a) One medical store cart (*Voiture Médicale Régimentaire*) which contains—

Four regimental panniers (*Paniers, Régimentaires*), viz.—

One for drugs, one for operation instruments, etc., and two for dressing materials.

Two *Paniers de Réserve de Pansements* to replenish above, containing 150 dressings.

Eight stretchers.

Ten *Musettes à Pansements*.

Twenty water-bottles holding one litre apiece.

Water-barrel, lamps, flags, etc.

The cart is two-wheeled and one-horsed. The panniers correspond to our panniers, but are more fully stocked in the matter of dressings. The *Musettes à Pansements* correspond to our surgical havresacks, but are smaller.

(b) Four *Trousses d'Infirmiers*, containing a few dressings and the instruments for minor surgery.

(c) One *Rouleau de Secours aux Asphyxiés*, containing a long cloak, hair mittens, and a serge rubbing cloth.

(d) One *Sac d'Ambulance*, corresponding to our field medical companion.

II.—In every cavalry brigade (two regiments)—

(a) One medical store cart, containing—

Two *Cantines Médicales*, corresponding to the four *Paniers Régimentaires*.

(b) One pair *Sacoches d'Ambulance*, corresponding to the *Sac d'Ambulance*, but suited for carriage on horse back for every two squadrons.

(c) One *Panier Régimentaire pour troupes à cheval*, corresponding to the two *Cantines Médicales*, and carried on the two-wheeled ambulance cart attached to the mounted troops.

This is allowed for the use of single or detached cavalry regiments.

The medical store cart is four-wheeled and two-horsed, and is intended to keep in close touch with the cavalry in all its movements.

20. *Austrian regimental medical equipment.*—In the Austrian service the following regimental equipment is allowed :—

I.—To every infantry or Jäger battalion—

One drug havresack (*Medicamenten-Tornister*).

One dressing havresack (*Verband-Tornister*).

These correspond to our medical companion and surgical havresack. There does not seem to be so good a selection of drugs as in our companions; on the other hand, the *Verband-Tornister* has a somewhat larger stock of instruments than our havresack. Each of the above has a case of drugs (*Arzneitasche*) belonging to it, containing a few "emergent" drugs—chloroform, laudanum, morphia, etc.

The total weight of a *Tornister* and its corresponding *Arzneitasche* is about $22\frac{1}{2}$ lbs.; they are carried by the *Bandagenträger* of the battalion.

II.—For every cavalry division (three squadrons)—

One drug pouch (*Medicamenten Packtasche*).

One dressing pouch (*Verband Packtasche*).

These correspond to the infantry *Tornister*, but are much less completely fitted out. They contain a small case of surgical instruments, but no chloroform: the weight of each is about 13 lbs. They are carried on the saddle of the *Bandagenträger*, and are so slung that they can be opened without undoing the slings.

III.—For every artillery regiment (four batteries) or ammunition park—

Two *Bandagen-Tornister*.

These are identical, and each corresponds roughly to the pair of *Packtasche* allowed to a cavalry division; they, however, contain chloroform: the weight of each is $25\frac{1}{3}$ lbs.

Every stretcher-bearer carries, in addition, a bandage pouch (*Verband-Tasche*) on his belt. This contains simple dressing materials, bandages, safety-pins, etc.

21. *Duties of corps medical units on the march.*—In the German Army no fixed position is laid down for the medical establishment to occupy on the march. In the French service the battalion medical establishment marches on the left of

the battalion; the regimental senior medical officer on the left of the regiment, accompanied by the ambulance transport wagon told off to the regiment for the day from the ambulance. All men falling out are seen first by their battalion medical officers, and then sent on, if necessary, to the senior medical officer, who orders them to be relieved of their kits and weapons, placing such as are unable to walk in the wagons, and falling in in front of the wagon those who are still able to do so.

In the German Army a section of the bearer company is told off to collect men falling out on the line of march, and its exact position is notified to the troops.

In the Austrian Army stretcher bearers march in rear of their companies, bandage orderlies in rear of corps, together with the medical officers. Sick falling out on the march are collected by the divisional sanitary unit, and at the termination of the march an assembly place (*Sammeplunkt*), which will, as a rule, be this same unit, is told off for the reception of all sick. If the divisional sanitary unit is not utilised for this purpose, the general officer commanding the division will arrange for the attendance of medical officers, with the necessary equipment, at the place selected. Sick are not to be kept at this place: it is only intended for their temporary refreshment and treatment: they must, if necessary, be as soon as possible sent back to the rear, or returned to their corps. In all armies such men as are unable to march next day are handed over to the local civil or military authorities.

22. Duties of corps medical units during long halts in cantonments.—In all armies regimental detention-rooms or hospitals are opened, where slight cases can be attended to. (German, *Krankenstuben*; French, *Infirmerie Régimentaire*; Austrian, *Maroden-Zimmer*.) The Austrian regulations mention that in these such cases as cannot be removed will also be treated. For the treatment of severe cases the Germans establish special cantonment hospitals on an average scale of 3 per cent., the French utilize their bearer companies, and the Austrians the ambulance section of the divisional sanitary unit.

In the German and Austrian services the local authorities have to equip and furnish the buildings used for this purpose; in the former service requisitioning is resorted to in the enemies' country.

In all services such cases as are still unable to proceed on the resumption of the march are sent to the nearest military

hospital; or, if unable to bear movement, are handed over to the local authorities, the nearest road or station commandant being warned of the fact.

23. *Duties of corps medical units during an action.*—The different services work on somewhat different systems, which must be described separately.

German.—The Germans lay down the following rules:—

On the regiment forming for attack the regimental stretcher-bearers are placed at the disposal of the senior medical officer: these men are distinguished by a red band on the left upper arm, and are not under the protection of the Geneva Convention. A regimental dressing station (*Truppenverbandplatz*) is then formed in a locality fixed by the officer commanding: the regimental *Medizinwagen* is halted near this spot, and any available wheeled transport, such as empty victualling wagons, is parked under shelter: the whole under the charge of a non-commissioned officer or a hospital assistant.

The regimental senior medical officer then details a portion of the medical establishment to advance with the regiment; the remainder to stay at the regimental dressing station. As a rule, one half of the establishment will be told off to each of the above duties. The work of medical officers at this station is limited to dressing wounded, and fitting them for further removal to the rear, and only, when this is out of the question, includes the performance of necessary operations. The duty of the regimental stretcher bearers is to carry in wounded to the regimental dressing stations or to the ambulance relay post (*Wagenhalteplatz*) after this is formed. Two of them are told off to carry the *Bandagen-Tornister* and accompany the medical officers who are sent on in advance. It is not intended that the regimental dressing station should continue to work as a separate unit after the establishment of the main dressing station (*Hauptverbandplatz*) by the bearer company; when this occurs the establishment of the regimental dressing stations will, as a rule, be utilized at the main dressing station, though the divisional principal medical officer may keep them separate, or return them to their respective corps at his discretion. The following rules are given for the choice of a position for a regimental dressing station: it should be easily accessible from the fighting line, and not too far from a road; and tactically important positions should be avoided.

24. *French*.—In the French Army the following system is carried out as soon as the regiment begins to prepare for attack :—The four-wheeled cart attached to it from the bearer company halts by the side of the road, and, together with any other available wheeled transport, forms an ambulance relay post (*Relai d'Ambulance*). This post marks, as a rule, the rearward limit of the work of the regimental stretcher bearer. A medical officer may, if considered necessary, be posted here. The regimental medical establishment proceed with the regiment as far possible, and establish a regimental dressing station (*Post de Secours*) : this will not, however, be done till the advance of the regiment is checked, which may be taken to mean till the fighting line begins to lose considerably. Up to this point, all wounded men will be attended to where they lie, and placed under shelter, if possible, near the road. The position of the regimental dressing station will be, as a rule, 1,280 yards from the fighting line, and about 2,800 yards from the enemy's artillery, somewhat in rear of the regimental reserves.

The regimental stretcher bearers and medical store wagons halt here, those of the advanced battalions waiting for those in rear; the wagons are then parked under cover under orders of the regimental sergeant of stretcher bearers, whose duty it is to serve out the necessary materials as wanted for work at the dressing station. As a rule, the whole medical establishment of the regiment will be concentrated at the regimental dressing station, but the senior medical officer may, at his discretion, detail battalion establishments to accompany the battalion reserves, till such moment as these are pushed forward into the fighting line; they will then fall back and work at the dressing station. The work of the medical officers at this station will be limited to rendering the wounded more fit for transport to the rear, arresting hæmorrhage, and applying other emergent treatment. The regimental stretcher bearers deposit their knapsacks at the dressing station, sling their rifles, and proceed to carry the stretchers to the front; their activity, and, indeed, that of all the medical establishment, is confined, during the actual progress of the action, to the zone of the attack lying between the regimental and battalion reserves; they will extend it to the remainder of the battle-field as soon as the conditions of the action will permit. The regimental bandsmen are utilised for transport of the wounded from the dressing station to the ambulance. In case of an advance

of the troops, the station must be moved as soon as possible, an *infirmier* being left with the remaining patients to attract the attention of the bearer company parties. In case of retreat, the station must be evacuated as soon as possible. Every available stretcher bearer and bandsman must be used, the less severe cases being sent off first; if any have to be left behind, one or more *infirmiers* should be left with them under the protection of the Geneva Convention.

The following points are to be observed in selecting a position for a regimental dressing station:—Avoid buildings and the vicinity of walls; also stony or rocky ground and groves of trees. Sheds may be used if well sheltered, but are liable to catch fire. The best position is on a soft soil behind a sufficiently large natural obstacle.

The following hints copied from Robert's *Traité des Manœuvres d'Ambulance* are worth noting here:—The *infirmiers* should be sent out to collect straw, wood, and water as soon as the station is established: two heaps or beds of straw should be made, on one of which patients should be laid as soon as they arrive from the front; to the other of which they should be transferred after having passed through the hands of the medical officers. A separate group may be, with advantage, made of such cases as cannot or should not be moved; and those who will be able to return to their corps after a short rest should also be kept separate. A table of some sort should always be obtained to save the surgeon from the constant stooping over patients on the ground. *Infirmiers* should be told off to different duties, and it will save trouble when a crush of wounded is coming in if one is detailed to receive them, and see them properly placed, their packs, etc., removed, and their rifles unloaded.

25. *Austrian*.—On an engagement with the enemy appearing imminent, the medical officers of corps units report themselves to the divisional principal medical officer for distribution to the two advanced aid stations and the dressing station which are formed for each division. Should a collision with the enemy occur unexpectedly, they will proceed to those stations of their own accord. It is suggested in the regulations that the senior medical officer and the two junior medical officers of each infantry regiment (making twelve in all) should be sent to the dressing station, the remaining medical officers of infantry (ten in number) being divided among the two aid stations. The senior medical officer of each Jäger

battalion should be posted at an aid station, and the remaining medical officers of these battalions be sent to the dressing station. As Major Hausenblas, however, points out in his very instructive paper, it is much simpler to attach medical officers of regiments, as they stand, for duty to the various stations; thus, those of the infantry regiment and Jäger battalion of the advanced guard would join the aid station of the advanced guard; those of the leading infantry regiment of the main body, the remaining aid station; keeping the numbers at six or seven for each station; all remaining medical officers joining the dressing station. Medical officers of cavalry and artillery remain with their units until the engagement has begun, when they find their way to the aid stations, and are disposed of as seems advisable. It is to be noted that no medical officer accompanies the troops under fire. No regimental dressing station is formed, and the only regimental medical establishment, whose duties need be considered here, is the stretcher bearers': the work of medical officers and bandage orderlies will more appropriately be considered under the head of the divisional sanitary unit. On the opening of a battle the officer commanding the regiment takes such measures as will assist the work of the stretcher parties; as a rule, the stretcher bearers of a regiment are kept separate, but those of a brigade may be massed together, in which case an officer is detailed to command them. The commandant of the stretcher bearers acquaints himself with the position of the nearest aid station, and informs the stretcher detachments, and then sends them to the front as necessary. Stretcher bearers carry no fire arms, but wear a sword, and on the left arm a black and yellow band. Each detachment or patrol consists of four men carrying two stretchers. One patrol is, as a rule, kept under cover till wanted. The stretcher bearers are ordered to bring in all wounded without distinction of corps or nationality, only selecting the worst cases to be brought in first; they must not waste any time at the aid station, returning as soon as possible to the front. They should only carry such cases as are unable to walk; others may be assisted along, or allowed to accompany some returning party. They should, as far as possible, bring in the arms and accoutrements of all wounded men. They should meddle, as little as possible, with the wounded; their duty is to be limited, as far as possible, to administering restoratives and to carrying. Examination and attempts at cleaning the wound are strictly forbidden.

Exceptions to this rule are—

- (1) when there is dangerous hæmorrhage, they may apply pressure away from the wound, tourniquets, etc., making every effort to get the wounded man, as soon as possible, to the aid station;
- (2) when there is a fracture, especially of the lower extremity, they may apply splints, or any improvised fixation apparatus.

In the case of isolated detachments of troops they may apply a first field dressing, if no medical officer can be found. Very severe cases, obviously unable to bear transport, should be moved under cover, and, if time permits, the patrols may also get the dead out of the way. The under-officers and commandants of the stretcher bearers are responsible for their carrying out their duties in accordance with the above instructions. Reinforcements may be obtained from the commanding officer from among men who are not needed at the front.

26. *Wound tickets*.—Wound or diagnosis tickets. (German, *Wund-Täfelchen*. French, *Fiches de Diagnostic*. Austrian, *Diagnosen-Täfelchen*.)

These tickets are designed to spare patients the pain and surgeons the waste of time entailed by repeated examinations; also to assist in the classification of the wounded for further transport. They should therefore be applied by the medical officer who first comes in contact with the wounded man, wherever this may happen to occur.

They differ in form in the three services—

In the German Army there are two forms of ticket, white and red. A white ticket denotes that a patient should be admitted into a hospital as soon as possible, and a red ticket that this is not immediately necessary. On the ticket the medical officer inscribes the nature of the injury, the treatment applied, and the extent to which a patient can bear transport.

In the French Army we find also two forms of ticket, white and red. The white denotes that the patient cannot bear transport; the red that he can do so. On the ticket the name and corps of the patient, the nature and situation of the injury, any operation that has been performed, and the nature of the dressing applied are written.

In the Austrian Army there is one pattern of ticket. On it the numbers I, II and III are printed. These are intended to indicate the extent to which the patient can bear transport. I indicates that he cannot be moved; II, that though

he can be moved, he should be placed in a hospital as soon as possible; III, that this is not necessary. The medical officer strikes out the two figures that do not apply, leaving the one that does apply to the particular patient untouched. Any remarks as to the nature of the wound, the treatment adopted, and any complication that may be expected and should be guarded against may be entered on the other side.

(Of these systems the Austrian seems the best. The fact of having two forms of ticket is the disadvantage of the French and German systems; there is a double risk of running short. Surgeon-Major Macpherson, A.M.S., in a paper read before the Tenth International Congress (Berlin, 1890), suggested the adoption of a general system, somewhat similar to the Austrian. In his ticket, I means case needs dressing; II, needs operation; III, already dressed, *i.e.*, not to be interfered with. The letters (*a*), (*b*), (*c*) are added signifying (*a*) foreign body removed, (*b*) foreign body not removed, (*c*) presence of foreign body not determined. The main point about such a ticket undoubtedly should be that the condition of the patient with regard to transport should be most conspicuously indicated; this should be recognisable without close examination, say at a distance of a yard or two. Any further information will probably be best conveyed in writing: symbols are apt to be confusing.)

CHAPTER III.

BEARER COMPANIES.

27. *Synonyms*.—German, *Sanitäts-Detachements*. French, *Ambulances*.

28. *Functions*.—The bearer company forms the second parallel of medical assistance; its object being, during an engagement, to form a main dressing station (German, *Hauptverbandplatz*; French, *Ambulance*) which is intended to supplement or replace the regimental dressing stations already formed by the corps units in front; its work consists in affording such surgical assistance as may be necessary to fit the wounded for further transport to the rear, and to carry out this transport as far back as the field hospital, which forms the third parallel. On other occasions the duty of the bearer company is to supplement generally the work of the corps units. In the German Army the senior military, in the French the senior medical officer is the commandant of the company. In both services the bearer companies are

divisible into two sections : in the German these are of equal size : in the French the second section is more of the nature of a detachment from the first or head-quarter section.

29. *Composition.*—The following table shows succinctly the composition of the bearer companies of the two armies :—

| | MEDICAL DEPARTMENT. | | | | TRAIN. | | | | STRETCHER BEARERS. | | | | HORSES. | | WAGONS. | | MULES. | | |
|------------|---------------------|------------|----------------------------|-----------|-----------|----------------------------|-----------|-----------------|----------------------------|-----|------|-------------|-----------|----------|----------------------|--------|----------|----------|--------|
| | Officers. | Officials. | Non-commissioned officers. | | Officers. | Non-commissioned officers. | | Other officers. | Non-commissioned officers. | | Men. | Artificers. | Riding. | Draught. | Ambulance transport. | Other. | Cacolet. | Litter. | Other. |
| German ... | 7 | 1 (a) | 8 | 8 | 3 | 6 | 25 (d) | 1 (e) | 28 | 166 | 7 | 19 (h) | 28 (k) | 8 | 5 | ... | ... | ... | |
| French ... | 7 | 1 (b) | 10 | 20 (c) | 3 | 7 | 76 (e) | 4 (g) | 6 | 92 | 4 | 19 (j) | 49 (l) | 8 | 23 | 20 | 10 | 3 (m) | |

Remarks.—(a) Apothecary. (b) Student of the Lyon's School. (c) Includes one veterinary officer. (d) Includes twelve soldier servants. (e) Includes eight soldier servants. (f) Accountant. (g) Includes chaplain. (h) Thirteen for officers. (j) Nine for officers. (k) Reserve two. (l) Reserve three. (m) Two reserve and one for carrying tools.

30. *Capacity for transport.*—The relative capacity for transport of the two companies is—

German : on stretchers 36, in ambulance transport carts 40; total 76.

French : on stretchers 22, in ambulance transport carts 36, on cacolets 20, in litters 10; total 88.

The French four-wheeled ambulance transport cart is taken as having an average carrying capacity of seven; its actual capacity being four lying down or ten sitting up, or two lying down and five sitting up.

31. *Equipment.*—The medical and surgical equipment of the German bearer company is carried in two two-horsed wagons, the contents of each of which are similar; the general equipment is carried in two other wagons, the arrangement in which is not identical, though corresponding

to a certain extent. The medical and surgical equipment is very complete, the assortment of drugs is perhaps unnecessarily large, and the forms in which they are supplied unduly bulky. There are over sixty different drugs, including both vinegar and dilute acetic acid, fol. menth. pip., as well as ol. menth. pip., oil olive, castor oil, salicylic acid, as well as salicin, and sugar. There does not seem to be any attempt at utilizing the modern concentrated preparations of drugs, the result being the presence of a large stock of dispensary equipment.

French.—In the French company the medical and surgical equipment is carried in two *Voitures de Chirurgie* and two *Fourgons du Service de Santé* (A and B). Two other *Fourgons du Service de Santé* (C and D) carry a reserve stock of medical and surgical equipment. Tents, stretchers, and so on are carried in another pair of *Fourgons du Service de Santé* (E and F). Office requisites, utensils of various kinds, and medical comforts are carried in the two *Voitures d'Administration*. Rations for the establishment are carried in two *Fourgons à Vivres*. The contents of the two *Voitures de Chirurgie*, of the two *Voitures d'Administration*, and of the *Fourgons du Service de Santé* (E and F) are identical in the two members of each pair; those of the *Fourgons du Service de Santé* (A and B) are nearly identical; C and D are the same as A and B. The above arrangement facilitates the division of the ambulance in two sections. The wagons of the two sections are the same, except that the head-quarters section has an omnibus for non-mounted officers (*Voiture pour le Personnel*), the second section having none.

32. *Ambulance transport wagons.*—The Germans possess three patterns, those of 1872, 1874, and 1877; they each carry two seriously and three slightly wounded cases; the two earlier patterns carry seven, the 1877 pattern nine stretchers.

The French have two patterns of ambulance transport wagon, the *Petite Voiture pour Blessés* and the *Grande Voiture pour Blessés*; the former two-wheeled and one-horsed; the latter four-wheeled and two-horsed. The former accommodates two patients lying down; the latter two lying down and five sitting up, or four lying down or ten sitting up.

33. *Distribution of bearer companies.*—In the German and French Armies each army corps has three bearer companies, one belonging permanently to each of the two infantry divisions, and one remaining in reserve.

In the French Army the third bearer company (*Ambulance du Quartier Général*) differs in some respects from the two divisional bearer companies described above, the main difference being in the *Fourgons du Service de Santé*, C and D, which in the third bearer company are fitted out to carry reserve equipment for the corps units; it also possesses fourteen ambulance transport carts (eight two-wheeled and six four-wheeled) as against the eight of a divisional bearer company. The French possess also a cavalry bearer company, which will be specially considered later.

The Germans have only one pattern of bearer company.

In the German Army the bearer companies are numbered in army corps; in the French service they are named after the divisions to which they belong.

34. *Position on the march.*—In the German Army one bearer company marches with the advanced guard of an army corps in front of the wagons of the advanced guard; the third bearer company marches with the corps artillery in the main body; the remaining divisional bearer company in front of the wagons of the remaining infantry division.

In the French Army the advanced guard is generally accompanied by the cavalry bearer company; should this not be present, a section of the leading divisional bearer company takes its place, following immediately behind the artillery of the advanced guard. The bearer company of the first infantry division (or its remaining section) marches with the main body in front of the engineer company and the corps artillery; the remaining divisional bearer company marches in rear of the main body, but in front of the fighting train. The third bearer company marches in the rear guard in front of the regimental trains. The space occupied on the march by the German bearer company is 240 yards; the French *Ambulance du Quartier Général* covers 647 yards, the divisional bearer companies about 600 yards.

35. *Duties on the march.*—In the German regulations the duties of bearer companies are not particularised further than already mentioned, namely, a section may be told off to take in sick off the line of march, and arrange for their further despatch to the rear. In the French regulations more particular instructions are laid down.

Every day a four-wheeled ambulance transport wagon is to be detailed for duty with each infantry regiment, and a two-

wheeled cart for each battalion of *Chasseurs à Pied*. Thus, while actually on the march each divisional bearer company would have with it only the four two-wheeled ambulance transport carts, the third bearer company would have its full complement. Daily in the evening bearer companies receive sick and foot-sore men from their corps, and arrange for their despatch to the rear. The wheeled transport of the bearer company should not be used for this purpose, if there is any chance of its being thereby prevented marching next day with the company; in such cases requisitioned carriage must be used. As a rule, these men will be transferred to an evacuation hospital, to a permanent hospital of the locality, or to an auxiliary hospital. A field hospital will only be used in default of any of these. In absence of any instructions, all cases will be evacuated in the direction of the terminal railway station of the lines of communication of the army corps. Men that cannot be moved will be handed over to the local authorities, if there is no hospital close at hand available. A medical officer of every bearer company marches daily in the advanced guard with the camp party (*campement*). His duties are to lay out the camp-ground, or to take over the billets assigned to his company, marking on the door of each house the number of men and horses it can accommodate. He makes himself acquainted with the sanitary condition of the locality, ascertaining in which houses cases of infectious disease have lately occurred, and pointing them out to the staff officer accompanying the party (*chef du campement*). These houses will be conspicuously marked and placed out of bounds for troops. He will, in addition, make search for any carts which may be available for transport of sick, those with springs being, as a rule, reserved for this purpose. In case of the division having to bivouac, he will make arrangements for the shelter of the sick, and when billeting is resorted to, he will select the buildings which appear most suitable for this purpose, pointing them out to the staff officer.

36. *Duties during long halts.*—In the German Army the establishment of the bearer company may be detailed for duty in the temporary cantonment hospitals.

In the French Army the bearer company itself establishes a divisional hospital, and takes in all such cases as cannot be treated in the regimental hospitals; on resuming the march these men must either be returned to their corps, or, if unfit for duty, be disposed of as on the line of march.

37. Duties during an action.—In both armies the first duty of the bearer company is to establish a main dressing station; the second to bring in wounded from the front by means of its stretcher detachments and wheeled transport; the third to afford the wounded such treatment as may be necessary to fit them for further transport, or as may be necessary to save life; the fourth to despatch them to the field hospital. It will be advantageous to consider each of these functions separately.

38. Formation of a main dressing station, German.—In the German Army the dressing station of a divisional bearer company is established under the orders of the divisional general or the principal medical officer. The orders for the formation of the dressing station of the third bearer company issue from the general officer commanding or the principal medical officer of the army corps. The situation the station is to occupy, whether it is to replace or merely supplement the regimental dressing stations, and, in addition, whether the two sections are to form one or two independent stations, must be stated in these orders. The indications to be followed in choosing a site are given as follows:—It should be out of infantry range of the enemy and near water and a road. If a house or farm be not available, a level piece of ground should be chosen, and an operation tent may be pitched, if necessary. The red cross and national flags are to be flown by day, and a red lantern to be shown after dark.

The dressing station must be arranged in three divisions, *vis.*—

- (1) For reception of wounded (*Empfangs-Abtheilung*).
- (2) For the application of complicated dressings (*Verband-Abtheilung*).
- (3) For the performance of operations (*Operation-Abtheilung*).

These divisions should be distinct, but not distant from each other. The senior medical officer directs the collection of wood, water, straw, etc., and the preparation of restoratives.

39. Formation of a main dressing station, French.—In the French Army the orders for the formation of the dressing stations of the various bearer companies are given as in the German Army. In both services the principal medical officer of a division may post a dressing station at his own discretion, reporting his having done so to the divisional general; in the French regulations it is also mentioned that the principal medical officer or the senior medical officer of the company may at any time during an engagement order the

position of the main dressing station to be shifted, should the exigencies of the situation demand it. Each bearer company details an officer (as a rule a medical officer) for duty with the principal medical officer of a division to ascertain the position of the regimental dressing stations, and ensure their connection with the main dressing stations of their division.

The following rules are given for the selection of the site for the main dressing station:—

Preference should be given to places easy of access, sheltered from fire, in the vicinity of a good road leading to the rear, and connected with the ambulance relay posts by practicable tracks. Houses may be chosen, since, as a rule, the station will not be within range of the enemy's artillery; but in case of accident it will be as well to choose, if possible, such houses as are sheltered by other buildings, and in any building to use especially those rooms which are farthest away from the enemy. Light structures, *e.g.*, sheds and barns, which are liable easily to be set on fire, should be avoided. Stony or rocky ground, groves and clumps of trees, the close vicinity of a wall, and the neighbourhood of masses of troops should be avoided. The average distance from the enemy's artillery should be 3,850 yards. The material and other wagons should be parked off the road; those of one section only should be at first unpacked, the remaining section being held in reserve in readiness for a move. The ambulance transport wagons mule cacolets and litters, should be told off in as many parties as there are regimental dressing stations to be served and despatched to the front. The position of these stations and the best roads to them will have been previously ascertained by a mounted officer despatched for the purpose. The *infirmiers* are despatched to collect straw, wood, and water, and to organise cooking arrangements, and to prepare restoratives. The station will be arranged in four sections—

- (1) For reception.
- (2) For dressings.
- (3) For operations.
- (4) For accessory services, cooking, etc.

Separate buildings will, as far as possible, be chosen for these.

40. *Bringing in the wounded from the front, German.*—For this purpose all the available transport of the company is used. The Germans form an ambulance relay post (*Wagenhalteplats*) between the regimental and main dressing

stations; here all the wagons are collected, while the stretcher detachments proceed to the front to search for wounded. Officers and under-officers are provided with whistles, with which to attract the attention of and direct their men. All men unable to walk will be brought in, "first aid" being administered when necessary, and placed in the ambulance transport wagons at the "relay." Wagons move off when full, each being accompanied by a lance-corporal; on bad and rutty roads the horses should be led.

On arrival at the main dressing station the wagons are unloaded by the hospital assistants and sick orderlies, and the patients taken to the reception division. Empty stretchers should then be cleaned and replaced in the wagons, which will again proceed to the relay post; on its way there it must not stop to pick up any wounded it may meet, except by order of an officer. Stretcher bearers, as a rule, carry wounded only as far back as the relay post, but may have to proceed, if no wagons are ready, as far as the main dressing station. In the latter case they must return as quickly as possible to the front, and are permitted to ride in empty wagons for this purpose. The number of stretchers carried in the wagons (fifty-six in the old pattern and seventy-two in the new pattern wagons) being in excess of the number of stretcher detachments, these latter, after having deposited their loaded stretchers in the wagons, can proceed with fresh ones to search for more wounded.

41. *Bringing in the wounded from the front, French.*—The French regulations are less precise on the above points, but the general principles are much the same. The ambulance relay posts, having already been formed by the regimental wagons, they are merely reinforced by the remaining transport of the bearer company. The stretcher bearers of the company work, as a rule, only between the regimental dressing stations and the relay posts; they leave their empty stretchers at the latter, taking over the loaded stretchers of the regimental bearers. The number of relay posts will vary with the circumstances; in a division attacking independently and forming all three lines of attack, there would be only two such, which would presumably be reinforced by the wagons of the two regiments forming the divisional reserve.

A useful hint is contained in the French regulations that during the march immediately preceding an engagement, the stretcher bearers should be told off in parties, corresponding to the number of regimental dressing stations, so that they

may march off immediately the company halts at the main dressing station.

42. *Treatment of wounded at main dressing stations.*—The system here is practically identical in the two services; the principle kept in mind is that "removal" is at this stage still the more important factor: all treatment is therefore limited to such as is necessary to fit the patient for further removal, or to save his life.

Into the first or reception division, all patients are brought on arrival; here they are examined and classed, simple dressings are applied to such cases as need no further treatment, and the serious cases handed on to one of the two other divisions. Wound tickets are applied, if this has not already been done.

In the operative division (second French, third German) all such operations as have to be performed are carried out. The French regulations merely describe them as "*Operations d'un urgence immediate.*" The Germans specify—ligature of the larger vessels, tracheotomy in cases of wounds of the upper air-passages, and amputations in cases of extensive "smashing" injuries or avulsions.

In the dressing division (second German, third French) such cases are attended to as require the application of complicated dressings, or fixation apparatus: for instance, fractures of the lower extremity, the thigh more particularly.

The equipment of the French *Voiture de Chirurgie* is so arranged as to facilitate this arrangement into divisions, certain panniers containing the equipment suitable for one division, others that appropriate to the others.

Comparatively trivial cases, after having been seen and attended to in the reception division, are separated from the others and collected together. In the German service a special collecting place (*Sammelplatz*) is fixed on for this purpose by the principal medical officer; the vicinity of crowded field hospitals should be avoided, but any field hospital not yet established may be utilised for this purpose. Should no collecting posts have been fixed, these cases will be massed near to the main dressing station, but well out of the way. The French do not specially mention any collecting post; slight cases are collected near the main dressing station, and subsequently directed to the rear, under the orders of the divisional principal medical officer; the senior man or officer present takes command of the party.

All men so disposed of must be able to perform a march of some distance. Cases of a hopeless nature should be placed apart, and made as comfortable as circumstances permit.

In both services the establishment of field hospitals, not actively employed, may be attached to main dressing stations for duty, under orders of the divisional principal medical officer; but all officers or men so employed must be held in readiness to rejoin their respective units as soon as required. The preparation of medical comforts, restoratives, etc., is entrusted in the German Army to the sergeant-major of the bearer company.

43. *Deaths at dressing station.*—In the German Army the commandant of the bearer company is responsible for the removal of identification labels and small books from dead men at the dressing station, and for despatching these with a written statement of the cause of death, and the place of burial to the corps of deceased. In the absence of both identification label and small book, the identity of the dead is to be, as far as possible, ascertained by means of any papers which may be found on him, or the marks that may be found on his clothing; a personal description should be made out, if necessary.

In the French Army the *Officier d'Administration* carries out all the necessary formalities, which are more complicated and entail a considerable amount of documentary work; they will be again referred to in discussing field hospitals.

44. *Removal of wounded to the field hospital.*—In the German service all slight cases, which are able to "do a march" (*deren zustand eine Marschtour zu Fuss zulassat*), and do not, in the opinion of the medical officer, need immediate admission to a hospital, are, as already stated, sent to the *Sammelplatz*, and thence to the first station on the line of communications, under the orders of the senior officer or man of the party. All other cases are sent by means of requisitioned carriage, for which arrangements should have been made in advance by the principal medical officer of the army corps or division, through the general officer commanding or the intendant. The wagons so received should be fitted up with straw, or otherwise, to suit them for sick transport. It often happens that some of the severer cases, e.g., wounds of the upper extremity, may be able to walk as far as the field hospital; these must be sent with the wagons, and

on no account be mixed up with the slighter cases going to the *Sammelplatz*.

In the French service the senior medical officer of the bearer company, as soon as he receives from the principal medical officer instructions as to where he is to send his wounded, forms them into three categories—

- (1) Those who are still able to march.
- (2) Those severe cases who can be moved to the rear without injury.
- (3) Those cases which cannot be moved.

The cases in the first category are disposed of as already described. Those in the second are sent to the rear by means of requisitioned carriage, fitted out for the purpose in some improvised manner: the Norwegian and Lorraine systems are those suggested by regulation. The wagons are formed into a convoy and placed under the charge of a medical officer. (The regulations talk of "*le convoi*" as if only one were made up: this seems a clumsy method; numerous small convoys would be preferable.) Requisitioned carriage is furnished by order of the general officer commanding the division, either from the spare carriage of the units or from local resources. Cases that cannot be moved must be left "in situ," and attended to until such time as they can be handed over to a field hospital coming up from the rear.

45. *Advance of troops*.—In case of a general advance of the division, the rule in both services is that a section of the divisional bearer company should be pushed forward with it under the orders of the principal medical officer. The French system of unpacking the wagons of one section at a time is worthy of note in this connection. Should this be impossible, the third bearer company or a section of it should be advanced, the necessary orders being given by the principal medical officer of the army corps.

46. *Retreat of troops*.—In case of a general retreat, the bearer company, as a whole, must accompany, all available carriage being utilised to bring off as many wounded as can be carried. The senior medical officer details the establishment and equipment to be left with the wounded who cannot be moved: in the German service the commandant is responsible for the removal of all but the purely professional equipment. The French regulations give the following useful hints:—The slighter cases should be moved off first; the equipment left behind should be reduced to as low a limit as possible; in case of there being any danger of the capture

of the entire bearer company, the senior medical officer should take particular care to destroy all confidential papers, especially such as might serve to give the enemy any information as to the movements of the force.

CHAPTER IV.

FIELD HOSPITALS.

47. *Synonyms.*—German, *Feldlazarethe*. French, *Hopitaux de Campagne*.

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The field hospital is the first unit in which "treatment" becomes of paramount importance, and can be permitted on other grounds than those of absolute urgency or necessity.

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In the French Army the number is fixed for each campaign by the Ministry of War, but eight is supposed to be the general average; they are equipped for 100 beds only.

In both services field hospitals have a special number in each army corps. Their position on the line of march is indeterminate, being altered to suit the circumstances of each case.

50. *Composition.*—The establishment of field hospitals in the two services is shown in the following comparative

statement :—

| | Officers. | MEDICAL. | | | Other officers. | TRAIN. | | HORSES. | | Wagons. |
|--------|-----------|------------|----------------------------|------|-----------------|----------------------------|------|---------|----------|----------|
| | | Officials. | Non-commissioned officers. | Men. | | Non-commissioned officers. | Men. | Riding. | Draught. | |
| German | 5 | 4 | 12 | 13 | ... | 4 | 18 | 10 | 20 | 7 (a) |
| French | 6 | ... | ... | 45 | 4 (c) | ... | 9 | 5 | 11 | 4 (b) |

Remarks.—(a) Four two-horsed and three four-horsed. Alternative—nine two-horsed; in this case eighteen draught horses. (b) An extra wagon for personal baggage occasionally. (c) Two *Pharmaciens* and two *Officiers d'Administration*.

51. *Duties.*—Field hospitals are not made use of, as a rule, on the line of march or in cantonments; the arrangements for these phases of a campaign have already been described. It is looked on as important that they should follow closely on the fighting force, in readiness for an engagement.

In the French Army, when a collision with the enemy seems imminent, the general officer commanding orders up to the front such field hospitals as he thinks fit; these are either kept together or distributed to the different divisions. In the former case they come under the orders of the principal medical officer of the army corps, in the latter case of the principal medical officer of the division, who give the subsequent orders for their establishment, as they consider the circumstances demand.

In the German service they are kept more closely under the control of the general officer commanding the army corps, but may be distributed to divisions. When the losses in an army corps are so great that the accommodation provided is insufficient, extra field hospitals may be applied for from the general officer commanding the army.

52. *Rules for selection of situation, German.*—The German regulations are very precise on this particular, which, considering the comparatively immobile nature of this unit, is one of considerable importance. It is laid down that the position should be as near as possible to the scene of action, but well sheltered; in choosing the situation the condition of the ground, the general surroundings, and the water-supply should all be kept in mind. If a village or a small town is selected, it is of the greatest importance that the surroundings should be good, and the access of light and air unobstructed. Crowded quarters should, with this object, be avoided. It is of importance that there should be open space close at hand to permit of the pitching of tents and huts; the former may be requisitioned from the hospital reserve depôt; the latter should be put up by local labour procured on requisition. The position of the field hospital should be marked by the national and red cross flags, conspicuously displayed. The following directions are given as to the class of building to be selected. As a general rule, rooms or buildings which have not been used for dwelling purposes are preferable to those that have, those only occasionally so used to those regularly so used, those that have been inhabited by healthy people to those that have been inhabited by sick. Civil hospitals, churches, monasteries, schools, especially Government schools, and similarly used buildings, are only suitable for internal disorders, not for surgical cases; when used for the former, particular attention must be paid to ventilation, and they must be disinfected before use. Barracks may be only used for cases of slight injury, or as convalescent depôts. Buildings not used as permanent dwellings—as, for instance, society meeting rooms, gymnasia, palaces, manufactories (except those in which certain trades, *e.g.*, mirror and carpet-making have been carried on)—are, as a rule, suitable. In planning the details of the hospital, the following points should be kept in mind:—Wounded men must not be concentrated too much under one roof; and, on the other hand, too great a dispersion leads to inefficient work. More than two stories in any one house should not be used, and the rule of one spare bed in every room, one spare room in every house, and one spare house in every hospital, is worth keeping in mind. The worst cases should be in the airiest rooms. The normal cubic space to be allowed for each patient is 1,360 cubic feet, and, in addition, accommodation should be found for the

following offices and store-rooms:—

- (1) Receiving room for patients.
- (2) Office and consulting room.
- (3) Operating theatre, with conveniences for storing instruments.
- (4) Dispensary.
- (5) A large kitchen, with larder and cupboards for bread and groceries.
- (6) Cellars for larder and stores.
- (7) In every building a small kitchen, where tea, etc., can be heated.
- (8) Two rooms near kitchen for bath-rooms.
- (9) A clean linen store.
- (10) A pack store.
- (11) Lamp-room.
- (12) Coal or wood cellar.
- (13) Drying-room.
- (14) Latrines and urinals for patients and attendants.
- (15) Guard-room.
- (16) Accommodation for one medical officer, hospital assistant orderlies, and, if possible, for other officials.
- (17) Laundry, with mangle.
- (18) Dirty linen store.
- (19) Disinfecting room.
- (20) Mortuary.

The offices above numbered (1), (5), (6), (10), (12) and (15), and if possible, also (17), (18) and (19) should not be under the same roof as the patients; the mortuary must on no account be so. [A single glance at the above lengthy list shows at once how completely we have left the zone of merely emergent installations, and also how difficult it must be to get a field hospital established and in thorough working order on the day of an engagement. The most that can probable be done is to select the buildings and to clean them out. It is worthy of remark how strongly the German authorities seem to insist on the use of buildings for field hospitals; tents and huts are only to be used when necessary (*erforderlichen falls*). In each army corps eighty tents, each capable of holding twelve patients, are supplied; the total accommodation would therefore be sufficient for a quarter of a ten per cent. casualty list. This should be ample for all the really serious cases which may be expected after an ordinary engagement; that is, for those cases which once brought into hospital should never be

again moved until recovered, *e.g.*, fractures of the lower limbs and penetrating wounds of the head, chest, and abdomen. Considering the well known fact that wounds do better in tents than in any but the best hospitals, it would seem preferable to use tents as long as they can be used, and only to fall back upon buildings in their absence. The question is, I venture to think, one demanding serious consideration; transport difficulties may no doubt stand in the way.]

53. *Rules for selection of situation, French.*—The French regulations advise that places selected for the establishment of field hospitals be well situated in a hygienic sense, and at the intersection of roads, if possible, near a rail or water-way. The nature of the soil and the water-supply must be specially noted; and the local resources in the way of buildings, bedding-materials, provisions, and transport taken into account. An open space close at hand should be reserved for tents, or huts to be pitched, and for the making up of convoys. The different buildings should then be told off to their various uses, attention being specially paid to those which are intended to accommodate patients, or for latrines. The offices should be, as far as possible, in one house and centrally situated. On every building a number should be placed as a notice, indicating the use to which it is to be put. The following articles should be requisitioned:—bedding straw for palliasses, cooking utensils, provisions, and comforts. Local labour should also be employed. Measures should also be taken to fit out wagons for transport of sick in readiness for their further evacuation.

54. *Working of a field hospital, German.*—The Germans lay down very detailed instructions on this point.

The field hospital should first be divided into two or more sections (*Krankenstationen*), depending on the number and nature of the cases admitted, and on the special qualifications of the various medical officers. Each of the stations will be in charge of a medical officer, the senior medical officer himself taking one. Infectious cases must always be kept apart, and a separate station may, if necessary, be made for convalescents. The establishment for each station will be told off by the senior medical officer. Medical officers in charge of stations work independently, but must refer all serious cases of operation to the senior medical officer, who has the option of performing them himself. The ordinary hospital visit will be paid in the morning, but a special night visit will be paid by a medical officer told off for the purpose by the senior medical officer, a roster for such duty being kept. The dispensary is in charge of the field apothecary,

position of the main dressing station to be shifted, should the exigencies of the situation demand it. Each bearer company details an officer (as a rule a medical officer) for duty with the principal medical officer of a division to ascertain the position of the regimental dressing stations, and ensure their connection with the main dressing stations of their division.

The following rules are given for the selection of the site for the main dressing station:—

Preference should be given to places easy of access, sheltered from fire, in the vicinity of a good road leading to the rear, and connected with the ambulance relay posts by practicable tracks. Houses may be chosen, since, as a rule, the station will not be within range of the enemy's artillery; but in case of accident it will be as well to choose, if possible, such houses as are sheltered by other buildings, and in any building to use especially those rooms which are farthest away from the enemy. Light structures, e.g., sheds and barns, which are liable easily to be set on fire, should be avoided. Stony or rocky ground, groves and clumps of trees, the close vicinity of a wall, and the neighbourhood of masses of trees should be avoided. The average distance from the enemy's artillery should be 3,850 yards. The material and other wagons should be parked off the road; those of one section only should be at first unpacked, the remaining section being held in reserve in readiness for a move. The ambulance transport wagons mule cacolets and litters, should be tied off in as many parties as there are regimental dressing stations to be served and despatched to the front. The position of these stations and the best roads to them will have been previously ascertained by a mounted officer despatched for the purpose. The *infirmiers* are despatched to collect straw, wood, and water, and to organise cooking arrangements, and to prepare restoratives. The station will be arranged in four sections—

- (1) For reception.
- (2) For dressings.
- (3) For operations.
- (4) For accessory services, cooking, etc.

Separate buildings will, as far as possible, be chosen for these.

40. *Bringing in the wounded from the front, German* — For this purpose all the available transport of the company is used. The Germans form an ambulance relay post (*Wagenhalteplatz*) between the regimental and main dressing

stations ; here all the wagons are collected, while the stretcher detachments proceed to the front to search for wounded. Officers and under-officers are provided with whistles, with which to attract the attention of and direct their men. All men unable to walk will be brought in, "first aid" being administered when necessary, and placed in the ambulance transport wagons at the "relay." Wagons move off when full, each being accompanied by a lance-corporal ; on bad and rutty roads the horses should be led.

On arrival at the main dressing station the wagons are unloaded by the hospital assistants and sick orderlies, and the patients taken to the reception division. Empty stretchers should then be cleaned and replaced in the wagons, which will again proceed to the relay post ; on its way there it must not stop to pick up any wounded it may meet, except by order of an officer. Stretcher bearers, as a rule, carry wounded only as far back as the relay post, but may have to proceed, if no wagons are ready, as far as the main dressing station. In the latter case they must return as quickly as possible to the front, and are permitted to ride in empty wagons for this purpose. The number of stretchers carried in the wagons (fifty-six in the old pattern and seventy-two in the new pattern wagons) being in excess of the number of stretcher detachments, these latter, after having deposited their loaded stretchers in the wagons, can proceed with fresh ones to search for more wounded.

41. Bringing in the wounded from the front, French.—The French regulations are less precise on the above points, but the general principles are much the same. The ambulance relay posts, having already been formed by the regimental wagons, they are merely reinforced by the remaining transport of the bearer company. The stretcher bearers of the company work, as a rule, only between the regimental dressing stations and the relay posts ; they leave their empty stretchers at the latter, taking over the loaded stretchers of the regimental bearers. The number of relay posts will vary with the circumstances ; in a division attacking independently and forming all three lines of attack, there would be only two such, which would presumably be reinforced by the wagons of the two regiments forming the divisional reserve.

A useful hint is contained in the French regulations that during the march immediately preceding an engagement, the stretcher bearers should be told off in parties, corresponding to the number of regimental dressing stations, so that they

may march off immediately the company halts at the main dressing station.

42. *Treatment of wounded at main dressing stations.*—The system here is practically identical in the two services; the principle kept in mind is that "removal" is at this stage still the more important factor: all treatment is therefore limited to such as is necessary to fit the patient for further removal, or to save his life.

Into the first or reception division, all patients are brought on arrival; here they are examined and classed, simple dressings are applied to such cases as need no further treatment, and the serious cases handed on to one of the two other divisions. Wound tickets are applied, if this has not already been done.

In the operative division (second French, third German) all such operations as have to be performed are carried out. The French regulations merely describe them as "*Operations d'un urgence immediate.*" The Germans specify—ligature of the larger vessels, tracheotomy in cases of wounds of the upper air-passages, and amputations in cases of extensive "smashing" injuries or avulsions.

In the dressing division (second German, third French) such cases are attended to as require the application of complicated dressings, or fixation apparatus: for instance, fractures of the lower extremity, the thigh more particularly.

The equipment of the French *Voiture de Chirurgie* is so arranged as to facilitate this arrangement into divisions: certain panniers containing the equipment suitable for one division, others that appropriate to the others.

Comparatively trivial cases, after having been seen and attended to in the reception division, are separated from the others and collected together. In the German service a special collecting place (*Sammelplatz*) is fixed on for this purpose by the principal medical officer; the vicinity of crowded field hospitals should be avoided, but any field hospital not yet established may be utilised for this purpose. Should no collecting posts have been fixed, these cases will be massed near to the main dressing station, but well out of the way. The French do not specially mention any collecting post; slight cases are collected near the main dressing station and subsequently directed to the rear, under the orders of the divisional principal medical officer; the senior man or officer present takes command of the party.

All men so disposed of must be able to perform a march of some distance. Cases of a hopeless nature should be placed apart, and made as comfortable as circumstances permit.

In both services the establishment of field hospitals, not actively employed, may be attached to main dressing stations for duty, under orders of the divisional principal medical officer; but all officers or men so employed must be held in readiness to rejoin their respective units as soon as required. The preparation of medical comforts, restoratives, etc., is entrusted in the German Army to the sergeant-major of the bearer company.

43. *Deaths at dressing station.*—In the German Army the commandant of the bearer company is responsible for the removal of identification labels and small books from dead men at the dressing station, and for despatching these with a written statement of the cause of death, and the place of burial to the corps of deceased. In the absence of both identification label and small book, the identity of the dead is to be, as far as possible, ascertained by means of any papers which may be found on him, or the marks that may be found on his clothing; a personal description should be made out, if necessary.

In the French Army the *Officier d'Administration* carries out all the necessary formalities, which are more complicated and entail a considerable amount of documentary work; they will be again referred to in discussing field hospitals.

44. *Removal of wounded to the field hospital.*—In the German service all slight cases, which are able to "do a march" (*deren zustand eine Marschtour zu Fuss zulassat*), and do not, in the opinion of the medical officer, need immediate admission to a hospital, are, as already stated, sent to the *Sammelplatz*, and thence to the first station on the line of communications, under the orders of the senior officer or man of the party. All other cases are sent by means of requisitioned carriage, for which arrangements should have been made in advance by the principal medical officer of the army corps or division, through the general officer commanding or the intendant. The wagons so received should be fitted up with straw, or otherwise, to suit them for sick transport. It often happens that some of the severer cases, *e.g.*, wounds of the upper extremity, may be able to walk as far as the field hospital; these must be sent with the wagons, and

on no account be mixed up with the slighter cases going to the *Sammelplatz*.

In the French service the senior medical officer of the bearer company, as soon as he receives from the principal medical officer instructions as to where he is to send his wounded, forms them into three categories—

- (1) Those who are still able to march.
- (2) Those severe cases who can be moved to the rear without injury.
- (3) Those cases which cannot be moved.

The cases in the first category are disposed of as already described. Those in the second are sent to the rear by means of requisitioned carriage, fitted out for the purpose in some improvised manner: the Norwegian and Lorraine systems are those suggested by regulation. The wagons are formed into a convoy and placed under the charge of a medical officer. (The regulations talk of "*le convoi*" as if only one were made up: this seems a clumsy method; numerous small convoys would be preferable.) Requisitioned carriage is furnished by order of the general officer commanding the division, either from the spare carriage of the units or from local resources. Cases that cannot be moved must be left "in situ," and attended to until such time as they can be handed over to a field hospital coming up from the rear.

45. *Advance of troops*.—In case of a general advance of the division, the rule in both services is that a section of the divisional bearer company should be pushed forward with it under the orders of the principal medical officer. The French system of unpacking the wagons of one section at a time is worthy of note in this connection. Should this be impossible, the third bearer company or a section of it should be advanced, the necessary orders being given by the principal medical officer of the army corps.

46. *Retreat of troops*.—In case of a general retreat, the bearer company, as a whole, must accompany, all available carriage being utilised to bring off as many wounded as can be carried. The senior medical officer details the establishment and equipment to be left with the wounded who cannot be moved: in the German service the commandant is responsible for the removal of all but the purely professional equipment. The French regulations give the following useful hints:—The slighter cases should be moved off first, the equipment left behind should be reduced to as low a limit as possible; in case of there being any danger of the capture

of the entire bearer company, the senior medical officer should take particular care to destroy all confidential papers, especially such as might serve to give the enemy any information as to the movements of the force.

CHAPTER IV.

FIELD HOSPITALS.

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who is also responsible for its installation, an assistant compounder being told off to help him, if necessary. He will also look after the instruments and see that they are kept in good order, a hospital assistant being told off, especially with this object. Instruments requiring repairs should be sent to the hospital reserve depôt to be "set" by the instrument-makers attached to that unit. An assistant surgeon may, if considered necessary, be put in charge of instruments. Dieting is carried out by the hospital, and seems to be calculated on a liberal and sufficiently varied scale. The diets are ordered a day in advance by the medical officer in charge of the case, and noted by the ward-master on the bed-head sheets of patients. A separate ration abstract is made out for each station, and a summarised return made out from these for the whole hospital by the hospital inspector. Drugs and treatment generally are prescribed at the morning visit for the ensuing twenty-four hours, but can in serious cases be ordered at any time. At the termination of the visit the junior medical officer of the station enters in a special prescription book (*Arzneiverordnungsbuch*) the name and rank of each patient and the treatment ordered, and sends this book, countersigned by the senior medical officer of the station, to the field apothecary. The ward-master accompanies the station senior medical officer on his morning visit to take his orders about the nursing of patients, change of linen, baths, etc. The duties of the hospital assistants and nursing orderlies need not be detailed; they include all the necessary cleaning of the ward, etc., supervision of its ventilation and warming, and the care of the patients.

Admission of patients.

All patients on arrival are taken to the receiving room, which should be central in position. This room is under the charge of the accountant and hospital inspector, assisted by a clerk and an under-officer, and, in press of work, by a ward-master. The accountant takes charge of the patient's small book, and in the absence of this makes out on a special form an admission sheet (*Lazarethaufnahmeschein*), on which all information obtainable as to corps, rank, religion, age, and length of service, and also an inventory of the kit and accoutrements (including money and valuables), is entered. This document, or the small book, is kept until the discharge of the patient in the receiving room. The accountant then enters the name of the patient in the admission and discharge book (*Hauptkrankenbuch*), the number of this entry being noted in the small book or on the admission sheet. All wounded,

whether of an allied army or of the enemy, are noted in the same book. If the patient be insensible, his identification label must be referred to, and enquiries made of the men who brought him in, and, in short, every possible step be taken to establish his identity. In very severe cases, which might suffer from being kept in the receiving room, only the main facts need be taken down at the time, details being filled in later on. When the identification label is the only information obtainable, reference should be made to the patient's corps, a full personal description being given, for further details. The hospital inspector must carefully supervise the filling in of this book, and the senior medical officer should also frequently inspect it. All valuables, belonging to patients, are taken over by the accountant, entered in small books or admission sheet, and put into the hospital chest. Arms, clothing, and accoutrements are taken over by the under-officer on duty in the receiving room, and entered in a deposit book (*Depositenbuch*); ammunition is taken over at the same time, and, except in the case of patients who may be expected to return to duty at an early date, is handed over to the nearest road commandant.

A medical history sheet (*Krankenblatt*) is made out for every man admitted to hospital: this sheet is intended to assist medical officers who may subsequently take over the case in its treatment: the senior medical officer is responsible for its being properly kept up. A daily entry should be made in it, showing the progress of the case day by day. This form is a most elaborate one, and the information it gives most complete.

Discharge of patients.

(1) By return to corps. All patients fit for discharge are reported the day previous to the senior medical officer who inspects them, and in case of approval reports their approaching departure to the accountant. The latter completes the entry in the admission and discharge book, and, further, warns the other members of the receiving room staff. Discharged men will, as a rule, leave the hospital in the forenoon after breakfast. They will, before discharge, take over all personal valuables from the accountant, and also their kit and accoutrements, an entry being made to this effect in their small books or on their admission sheets. All clothing should be inspected by the receiving room under-officer prior to return, and mended, when necessary. Articles that may be deficient will be replaced in accordance with the

clothing and equipment regulations. Discharged men are handed over to the local or nearest military commandant ; they may, however, be sent direct to their corps, if these be in the vicinity.

(2) By transfer to other hospitals. This will be more particularly described when discussing the general question of evacuation of sick and wounded.

(3) By invaliding. Station medical officers will bring all men proposed for invaliding before the senior medical officer. The latter directs the making out of the necessary documents, copies of which are sent direct to the dépôt of the invalid, the originals being filed for record in the hospital. The nearest military commandant then arranges for the conveyance of the invalids to their dépôts. Cases of severe injury or amputation, which do not need any further medical attendance, may, however, be sent direct to their homes to avoid unnecessary travelling, the dépôt authorities being informed. Care is to be taken that all invalids are provided with sufficient and suitable clothing for the time of year.

(4) By death. All deaths are to be reported at once in writing by the station medical officer to the senior medical officer ; the latter countersigns the notice and passes it on to the accountant, who completes the entry in the admission and discharge book ; the death report is then filed. As regards funerals, all possible ceremony is to be observed ; and if there is a body of troops in the vicinity, notice should be sent to them.

(5) By desertion. The fact of desertion should be reported to the nearest military commandant.

Disposal of weapons and accoutrements.

In case of invaliding, death, or desertion, all weapons, equipment, and clothing will be handed over to the nearest military commandant. Weapons and accoutrements of men transferred to reserve hospitals will be similarly dealt with.

55. *Working of a field hospital, French.*—The French give somewhat less precise rules ; the following may, however, be detailed :—Every patient is, as in the German service, brought first to the receiving room, and his name entered in order in the admission register (*Registre des entrées des Malades*) ; the following cases, however, are not entered :—

(1) Men who come in at the end of an engagement, and are merely dressed, and then rejoin their corps.

(2) Men who are evacuated from their corps, and merely receive attention *en route*.

The regulation is that no man should be admitted to hospital who is not provided with a hospital sheet (*billet d'hôpital*) signed by his commanding officer and by a military medical officer, but after an action this rule is relaxed ; at such times, as in all cases of emergency, the senior medical officer makes out the hospital sheet himself, reporting the admission to the corps concerned. This sheet combines, in some respects, the dual functions of a sick report and a medical history sheet : on it are inscribed the dates of admission and discharge or transfer to and from every unit through which the man passes ; on recovery it accompanies the man back to his corps ; in case of death it is sent back to the corps as a notice. A similar form is made out for foreigners (allies or enemies). The sheet consists of two parts—one, "the administrative part," is retained by the corps ; the other, the medical part, is forwarded to the principal medical officer of the district or corps concerned, and by him passed on to the *Bureau de Comptabilité et Renseignements*.

Kits and weapons of patients.—These are brought with patients to hospital, but ammunition and articles of camp equipage, which form part of a common stock (*d'un usage collectif*) should not be brought ; in case they are so, they should be handed over to the nearest corps, or to some competent authority. Clothes are cleaned, and, if necessary, disinfected ; weapons must be put on one side on admission, and within twenty-four hours after an action should be cleaned and oiled. Those of the dead, and of such serious cases as the senior medical officer shall indicate, should be handed over to the artillery authorities. The number of those kept in hospital is shown on the daily state, and their final disposal rests with the military authorities.

Hospital visit.—The hour of hospital visit is fixed by the senior medical officer. Treatment sheets (*Cahiers de visite*) must be kept for every patient ; on these every important change in the progress and treatment of each case is noted. These are sent at the close of each month to the *Bureau de Comptabilité et de Renseignements*.

Dieting.—There is no regular scale of diets, but the normal field ration is taken as a guide. Diets are made up from the supplies carried by the hospital ration carts, supplemented by any local supplies that may be procurable—*e.g.*, by donations, requisitions, capture, etc. Expenditure is supported by a simple balance sheet, showing articles "received" and "expended."

Discharge.

(1) By recovery. Senior medical officers report daily to the chief of the staff of their division, or army corps, the number of men fit for discharge on the day following. On the line of communications this report is sent to the commandant of the section of the line of communications in which the hospital happens to be situated. This report must state whether the men are fit for immediate return to duty, or if rest in a convalescent dépôt is advisable, and, if so, for how long. On this report the chief of the staff (or commandant of the section) arranges for the disposal of the discharged men.

(2) By transfer to other hospitals. This will be described when discussing evacuation.

(3) By death. A death certificate on a special form (*acte de décès*) is made out by the *Officier d'Administration*, and kept as a record. A notice of decease (*Extrait mortuaire*) is also made out in duplicate by the same officer, and one copy forwarded with a covering letter, also on a special form, to the Mayor of the Commune, where the deceased was last domiciled; the other copy is sent to the accounts department. Before burial the *Officier d'Administration* should collect all papers, valuables, etc., belonging to the deceased which have not already been handed over to him, and forward them to the accounts department with the identification label and small book of the dead man. Patients dying on their way to a unit are considered as dying in that unit. Interment is carried out by the *Officier d'Administration* under the orders of the senior medical officer, *infirmiers*, fatigue parties, or pressed labour being employed.

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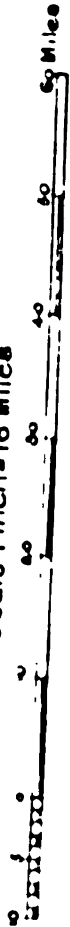
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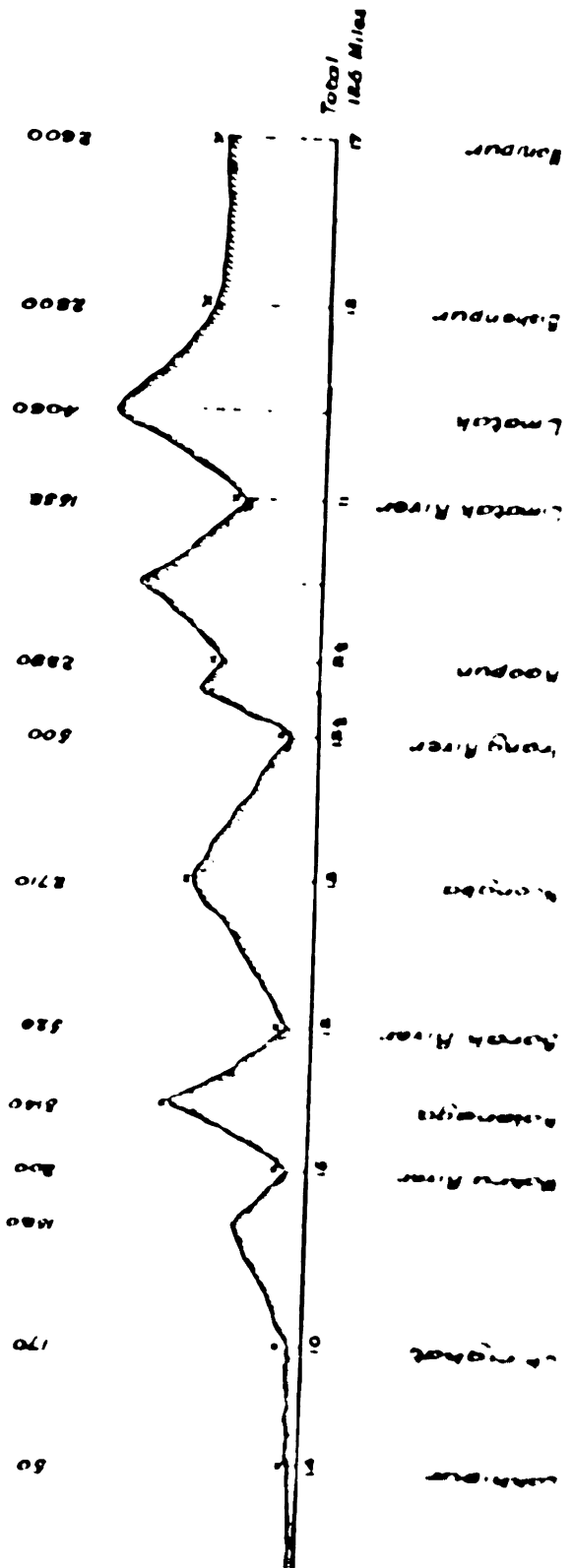
(To be continued.)

SILCHAR TO MANIPUR

Scale 1 Inch = 16 Miles



Rest Houses thus



SILCHAR TO MANIPUR.

BY LIEUT.-COL. LAMBERT BROWNE, 17TH BENGAL INFANTRY.

It was my fate about a month ago to get a telegram ordering me to Manipur for court-martial duty, and as I had some difficulty in getting anything accurate about the different marches and rest-houses, I thought I would make a few notes for the guidance of those who may hereafter have to do the same journey.

In the first place, Silchar is 125 miles from Manipur, over four or five ranges of hills, averaging 3,500 feet, and the climbing very stiff. The journey can be done comfortably in eight days, and at each resting place there is a good rest-house, furnished with tables, chairs, beds, and tubs.

The first thing the traveller has to do is to apply to the Silchar civil authorities for Naga coolies, and, in deciding on the number he wants, he must recollect that he must carry with him, not only every article of food for himself, but also for his servants and horses: I could not get even the familiar *murghi*. He must also remember to take some warm clothing and bedding, for the nights are chilly.

The next thing for him to do is to decide on what marches he will make, always bearing in mind that it will not do for him to get ahead of his coolies. I enclose a rough sketch showing the different marches and the elevations of the various hills one has to cross. Had it not been for the fact that I was travelling by myself, and therefore somewhat lonely in the evenings, I think I divided my marches as well as the circumstances permitted.

On the 31st I sent off all my coolies to Lakhipur, fourteen miles, and my servants with them, and the following morning I rode out and joined them there and had breakfast. The road is perfectly level and very good going the whole way.

At 1 P.M. I started off my coolies and followed them after a bit and got to Jhirighat, ten miles, about 6 P.M. The road is fairly good, but somewhat undulating. The rest-house at Jhirighat, where I stayed my first night, is good enough, but it is a hot, unwholesome sort of place, and the sandflies are a terror; they nearly drove my horse mad, but I was all right when I turned in, for I had some muslin curtains, the ordinary mosquito netting being useless.

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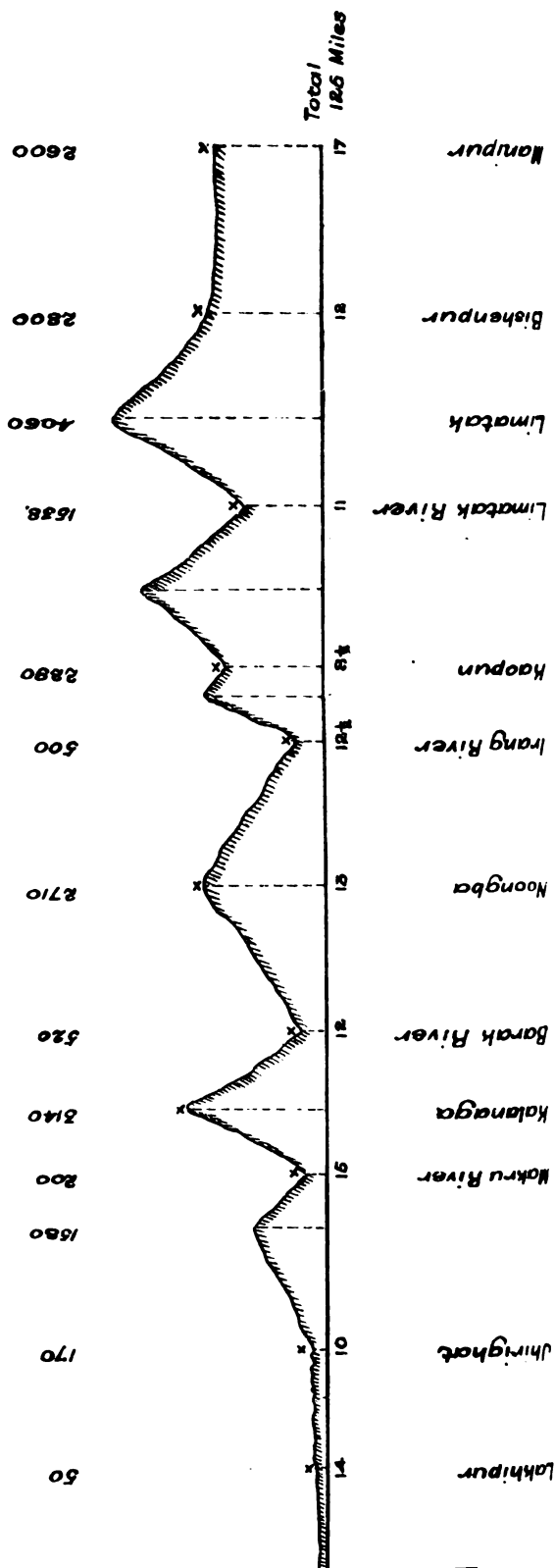
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The next morning I started at daylight, crossed the Jhiri on a bamboo raft, and after a fifteen mile march I got to the Makru river, crossed it by a suspension bridge, and put up at a most picturesque little bungalow overlooking the river, in which there is said to be good fishing.

I found it cool and pleasant, and no sandflies.

My third day was from Makru to Barak river, twelve miles (the first five miles is very steep climbing indeed) and brought me to Kalanaga. I had to give my coolies a rest here, so I had breakfast in the rest-house, and afterwards inspected the detachment of my regiment which occupies a stockade there. I found the air rather fresh here, as the elevation is about 3,140 feet. After a rest of two hours, I trudged down hill for seven miles to the rest-house on the Barak river. I stayed here the night and found sandflies once more. If one had the time, it would repay you to remain here for twenty-four hours and have a go at the *mahseer*.

My fourth day's march was a very long and very trying march of thirteen miles up to Noongba. There is quite a large Naga village here and a nice rest-house, but it is very cold at night.

On the fifth day I left Noongba and travelled downhill to the Irang river (twelve and a half miles), crossed over a very fine suspension bridge, and put up at the rest-house for breakfast and a sleep. Irang is surrounded on all sides by very precipitous hills, some of them like walls of 2,000 feet and almost perpendicular. The best *mahseer* fishing in Manipur State is to be got here, but the sandflies are rather a nuisance. After a short sleep I started again, much to the disgust of my coolies, and ascended the hill, and about 5 P.M. found myself in the lovely Kaopun valley of about 2,300 feet, and here I put up and slept till I was awake in the morning by the crowing of the jungle cocks.

The sixth day meant a big climb and a bigger descent, and I found myself at the Limatak river, and, after passing over the suspension bridge, I put up at the rest-house for the day.

The seventh day. This was the hardest march of the lot, for the first seven miles is a very stiff ascent indeed, and at the sixth mile, for about a hundred yards, the roadway consists of a lot of flat stones or boulders, over which I found it very difficult to get a big waler mare, and I have no idea how I shall get her down them on my return, for it is nothing but a succession of irregular steps, some of them two feet high.

On arriving at the summit of the Limatak, you get a most lovely view of the Manipur valley, reminding me of nothing so much as the view of the Doon from Mussoorie.

From here I had an easy descent of five miles to Bishenpur, where I put up for the night, and was able to buy some rice and my first *murghi*.

The eighth day. From Bishenpur to Manipur is seventeen miles, over a perfectly flat country, and one of the best roads I have ever ridden over. My mare did not take a long time in getting over the distance, but my week's travelling was enough just then, and I was very glad when I drew up at the hospitable mess of the 44th Gurkhas, and was introduced to a substantial breakfast.

And now I have little more to add. Do not take a gun or a rifle, for you will see nothing to shoot, though you will hear barking-deer and jungle-fowl every day. If you care for fishing, bring along a rod and some spoons. The scenery all the way is very fine, while it is a perfect paradise to the collector of orchids or butterflies.

Coolies cost Rs. 7-8-0 apiece for the single journey, and as I had to carry uniform, etc., I took twelve with me, and the Government allows a field officer travelling on duty two to carry his clothes, stable clothing, and utensils, in addition to cooking pots and stores for himself, his servants, and his horse for ten days.

Talking of stores, just before leaving Silchar, I was given a small tin, small enough to go into your waistcoat pocket, and in it were twelve tubes of concentrated beef tea. If you feel at all done, take out a tube, pour a cup of boiling water on it, and you will have one of the best cups of soup you ever had. It is called Maggi's Consommé, and I can strongly recommend it to all travellers and sportsmen, and I believe that a tin of this served out occasionally to every British soldier on active service would save many a man from the effects of over-exertion and stave off many a fever.

For this reason I would also recommend it to the notice of the Commissary-General and the Surgeon-General, and charge them nothing for the suggestion.

But as I am not an advertising agent for a patent soup, I will say no more.

NOTE.—The first five miles of the road from Jhirighat to Godamghat is simply awful; all the bridges are out of repair, and the road is a slough, and you sink in over your knees every step you take.

FIRST AID TO THE WOUNDED.

BY MAJOR A. C. YATE, 2ND BALUCHIS.

It has been in my mind for the last six months or so—at any rate ever since the Maizar affair—that the provisions for rendering first aid to the wounded, in native corps certainly, are not as good as they might be. Recently the number of ward-orderlies in a native regiment has been raised (every little helps) from two to four, but at the expense of the fighting strength.

The portion of the regiment, however, on which the duty of rendering first aid to the wounded naturally falls is the band.

The bandsmen are annually put through a course of stretcher drill, and it is a recognised thing that in action the wounded will be looked after and removed from under fire by the bandsmen.

It is not, however, any use carrying off a man in a stretcher if he is to bleed to death *en route*. I am not going to attempt to touch here on technical medical matters, of which I know next to nothing. All I have to say is that it appears to me quite feasible to instruct all bandsmen in stopping bleeding, bandaging, and applying temporary splints to fractured bones.

At the elementary classes of instruction held under the auspices of the St. John's Ambulance Association in Great Britain, the Colonies, and I believe also in India, people of but little or no education are taught these, the simplest essentials for rendering first aid to the wounded. What these people can learn our native soldiers can learn. The instruction would be carried out regimentally by the medical officers and their hospital assistants, neither of whom, except in times of unusual sickness, or when a very large force takes the field, are overworked. It would involve no extra expense as far as I am aware.

Soon after this idea occurred to me, I wrote to one or two persons, whose advice on such a question I knew to be worth having, and asked for their opinion. From their replies I gathered that the idea was sound, that some of the authorities viewed it with favor, and that there was nothing new or original in it. One regiment in particular was mentioned, which,



From a sketch by—
Lieut.-Col. C. Pulley.

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From a sketch by—
Lieut.-Col. C. Pulley.

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However, when I was put on the scent, I at once wrote to this medical officer and got all the hints from him I could. When the proposal was made that a similar class of instruction should be started for the bandsmen in the regiment to which I belong, it was, I am glad to say, well received by the medical officer, and for some months the bandsmen attended regularly once a week for an hour for instruction in the stopping of bleeding, the use of the triangular bandage, and the application of temporary splints.

This entailed no expense whatever.

The saving of life and limb and health, both of officers and men, may, in my opinion, be greatly furthered in time of war by the general adoption throughout the native army of regimental courses of instruction in first aid to the wounded.

If I may make a suggestion, it is that this instruction should not be left to the option of commanding and medical officers, but should be regularly carried out in all corps by order from Army Head Quarters.

NOTE.—The Council will be glad of more articles on this subject, and especially of any suggestions for the rapid removal of the wounded in mountain warfare.

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MACHINE GUNS.

By CAPTAIN M. E. CARTHEN YORSTOUN, 4TH BOMBAY CAVALRY
(POONA HORSE).

"If made use of intelligently on active service, the machine gun of infantry rifle calibre that will fire with smokeless powder and be sighted up to 3,000 yards will mark a new era as pronounced as that when rifled or when breech-loading small arms were first adopted.

Lord Wolsley.

These words were written more than twelve years ago and yet, during this time, the machine gun question has made but little progress, and it is scarcely too much to say that at the present date the army is but little better served in the matter of machine guns than it was twelve years ago.

The reasons for this are probably traceable to the extreme conservatism of the British Army; to the doubt which still exists in the minds of many as to the utility of machine guns; to the indifferent success which in some cases has attended their use; and perhaps above all to the difficulty which has been experienced in obtaining a suitable equipment.

The ideal machine gun may be defined as one which (i) never "jams" or gets out of order in any way; (ii) can accompany troops in any country; (iii) can be got in and out of action in a few seconds; and (iv) is handled by competent men in an intelligent manner. It is the object of this paper to try and show that the failures of the past are mostly due to causes which it is possible to remove, and that it is by no means impossible to reach my definition of the ideal machine gun. That such a weapon would add to the fighting power of an infantry battalion or cavalry regiment will be readily admitted, and indeed, though the matter is still in an embryo condition, though gun detachments are usually insufficiently trained and indifferently equipped, examples are not wanting, both in Africa and on our frontier, of the great utility of machine guns. A withering and concentrated fire at the critical moment of the fight is after all what usually decides the fate of battles. What was it that halted the advance of the French Guard at Waterloo and nearly turned Gravelotte into a defeat for the Germans? What has stopped the rush of Zulus, Dervishes, and Tribesmen in a hundred fights? A

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Now, I believe that (1) “jams,” (2) indifferent training, and (3) want of adequate equipment, account for most failures, and it is to these points that I would draw attention. Probably “jams” and indifferent training go hand in hand, for the latter certainly leads to the former; and as regards the third point, it is indeed strange if mechanical science cannot overcome the difficulty of equipment.

Instruction.—It may be assumed that the Maxim gun has, for the present, distanced all competitors. But the Maxim gun is a somewhat delicate little engine, which, like any other machinery, is apt to get out of order if placed in unskilled hands: consider the rate at which the gun works and the number of movements, rotatory, horizontal and vertical, all going on at the same time, and it is really surprising that this is ever got to work at all when used by men who have only a superficial knowledge of the mechanism. We do not ask a railway porter to drive the locomotive. Intelligent non-commissioned officers and men may easily learn to lay, load, and fire the gun, and may even attain to some technical knowledge of the machinery; but to instantly grasp the cause of a “jam” or stoppage, put it right, look after the “bearings,” or replace a broken part, requires a higher mechanical training; we require experts for this, and to obtain them I would suggest that from each regiment a few specially selected officers and non-commissioned officers, together with a few men, if possible selecting men who are mechanics by trade, be put through an advanced course of machine-gun instruction, and examined from time to time, that their knowledge may be kept up to concert pitch. The superficial machine-gun course at present taught at our musketry schools is not sufficient; some of the instructors themselves have not the requisite knowledge of the subject, and, moreover, the time given is inadequate; most instructors admit that this is the case: the result is that pupils are dismissed with certificates

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Some years ago a distinguished regiment in this country had a Maxim which they were most anxious to try on service, application was made to send the gun to one of our frontier expeditions, and the Commander-in-Chief replied that they might do so if the commanding officer could guarantee that his gun would not "jam"; this the commanding officer could not do, as the gun invariably stopped firing after a few rounds; would-be experts were called in, and the detachment did their best to find out what was wrong; but it was no good, the guarantee could not be given, the gun did not go, and great was the disappointment. Shortly after, however, some one suggested a simple remedy which no one had thought, or perhaps known of, with the result that the gun worked right merrily!

But I must apologise for demonstrating a matter so clear, the engine-driver must know something about engines, and, though no doubt it would be an excellent thing if a machine gun were invented which would grind our bullets as easy as a barrel organ does music, in the meantime we have got to make the best of what we have got, and, to put Maxim guns in the hands of indifferently trained men, must inevitably result in failure.

It would certainly be a great advantage to have a skilled mechanic in attendance on every Maxim gun; and, in order to get these, regimental armourers should, I think, undergo a careful course of instruction in machine guns during their arsenal course. Our civil master armourers, who preside over gun shops at arsenals, are quite competent to instruct in all matters connected with the mechanism and repair of machine guns. I do not then see why regimental armourers should not attend the practice-shooting of guns attached to their regiments, and in time of war be attached to the machine gun detachment. For gun detachments it is only necessary

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Equipment.—The next point to consider is equipment.

A satisfactory mounting and method of carrying guns, ammunition, etc., is a want which has long been felt. Equipments of all kinds and descriptions have been invented, but in most cases have been condemned. Whether it be wheeled carriages, pack saddles, portage, or any other kind—for even wheel barrows have been tried—defects of some sort have condemned them. Some have been too heavy, others too light and flimsy ; with some the stability has been all wrong, while others have been condemned on account of the time it took to get the gun in and out of action. I could point out several equipments which have been very nearly right, but have been quite spoilt owing to some defect. Opinions are also so very varied, and the countries in which our armies have to fight of such different character—embracing, as they do, the whole of the civilised and uncivilised world—that the difficulty of selecting a universal equipment has been very great.

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when inspected in the cold weather of 1896-97 by the Commander-in-Chief, rehearsed a system of "first aid," which met with His Excellency's praise and approval. It chanced that I had been present in the station where this inspection took place, and I at once recalled the fact that the medical officer had told me that His Excellency had expressed himself pleased with what he had seen done. As, however, I was not at the parade, I did not at the time grasp what was meant.

However, when I was put on the scent, I at once wrote to this medical officer and got all the hints from him I could. When the proposal was made that a similar class of instruction should be started for the bandsmen in the regiment to which I belong, it was, I am glad to say, well received by the medical officer, and for some months the bandsmen attended regularly once a week for an hour for instruction in the stopping of bleeding, the use of the triangular bandage, and the application of temporary splints.

This entailed no expense whatever.

The saving of life and limb and health, both of officers and men, may, in my opinion, be greatly furthered in time of war by the general adoption throughout the native army of regimental courses of instruction in first aid to the wounded.

If I may make a suggestion, it is that this instruction should not be left to the option of commanding and medical officers, but should be regularly carried out in all corps by order from Army Head Quarters.

NOTE.—The Council will be glad of more articles on this subject, and especially of any suggestions for the rapid removal of the wounded in mountain warfare.

MACHINE GUNS.

By CAPTAIN M. E. CARTHEW YORSTOUN, 4TH BOMBAY CAVALRY
(POONA HORSE).

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divided into two classes—(1) wheeled carriage and (2) pack saddle.

Now, the first principle in the use of machine guns is that they shall not hamper troops either on the line of march or in the field, and it is perfectly certain that anything in the shape of wheeled carriage, not only cannot accompany troops in many countries, but must be a source of encumbrance and anxiety in almost any country.

Even in the plains of India, it is not an uncommon thing to see horse artillery batteries in difficulties on account of sharp scarped irrigation canals, or other obstacles, which led mules or horses can easily negotiate, and in the mountainous countries, in which most of our frontier expeditions take place, or in heavy jungle, wheeled carriage is out of the question. In a word, wheels cannot go anywhere and everywhere, whereas it is a very strange place where lightly laden mules or horses cannot go, and I think, therefore, that it may be accepted as a *sine quâ non* that machine guns should be carried on pack saddles.

Putting aside then all purely wheeled carriage—which, however, may be found useful in forts and cities—guns carried on pack saddles may be mounted (1) on tripod stands, (2) on carriages as in mountain batteries, or (3) on a light carriage and tripod stand combined; that is to say, on a tripod stand which, when required, may be put on wheels and dragged by men using drag ropes.

For universal use I am inclined to favour the last of these equipments. In very mountainous countries the wheels would not be required and might be left behind, as no dragging could be done; but, on the other hand, in most countries wheels will be found very useful to drag the gun rapidly from position to position while the mules remain under cover. I have worked an equipment of this kind for some months with an infantry regiment, and learnt the advantages of being able to put the tripod stand on wheels. Thus, in "the attack," I could unlimber under cover, and using drag ropes keep up with the "firing line," while the mules followed on in rear keeping under cover, and, if required, could be called up by signal. It is a great advantage to have your mules under cover, and in changing position it is very much quicker to drag the gun along on wheels than to load up on mules and again unload at the new position. The use of wheels necessitates an extra mule for their carriage, but the advantages of having them outweigh, I think, this disadvantage. It is a very simple matter

to adopt tripod mountings, so that they may fix on axles, on occasions when wheels are required ; and, as I said before, the wheels can be left behind when they are not likely to be required.

To accompany infantry over rough hilly country, the weight of loads which mules carry is, of course, a very important matter and still more is it important in the case of machine guns carried on led horses intended to accompany cavalry. In the latter case I need hardly say that wheels are not required, and that the tripod stand alone should be carried. I may say here that the so-called galloping carriage is, to my mind, an abomination ; and in this opinion, I think, most cavalry officers will agree. Sir G. Greaves once said to me : " Your beastly machine guns !—why they would hamper cavalry," and my earnest protest that I would rather die than hamper cavalry fell, I fear, on unbelieving ears. Certainly anything in the shape of a galloping carriage would hamper cavalry, but not so led horses carrying pack loads of about 200 lbs. all told, and this, I think, is approximately the right weight for machine gun detachments, be they infantry mules or cavalry horses. With such loads active mules can accompany infantry almost anywhere, and led horses can go wherever cavalry can go. The loads must, of course, be well balanced and ride evenly ; but I speak in no uncertain way, as, with an equipment I have devised, two guns we had in Tirah crawled up and down some very remarkable places, and I have taken led horses at the extended gallop over some very rough country. A led horse will, as a matter of fact, go just as well with a pack load on its back as a rider, and should the latter be an indifferent performer, a good deal better ; for it must be remembered that the average weight our troop horses have to carry is considerably over 200 lbs. I find that with this equipment an infantry detachment can get the gun into action in fifteen seconds and out of action in rather less, while for cavalry it takes about twenty-five seconds to do the same, the difference, of course, being in the time it takes for cavalrymen to dismount. I have never yet succeeded in getting a squadron of cavalry to dismount and open carbine fire in less than forty-five seconds, so I do not think the charge of hampering cavalry need be seriously entertained. The loads carried by mountain battery mules run up to 350 lbs., so with 200 up, machine guns should be got to places which would defy even a mountain battery.

Ammunition.—I often hear it said that Maxims will consume an enormous quantity of ammunition : quite true !—they

can fire off thousands of rounds in a few minutes, but that they will do so, except under very exceptional circumstances, is to assume that officers in charge of guns are incompetent. In practice it has been found that the expenditure of ammunition is not, as a rule, excessive; and for this reason, that trial shots do not use up much ammunition, and once the range is found, a few dozen bullets usually clears the enemy out of the place fired at, and the gun has to be laid on another target. The notion that guns will go on pumping out lead in one continuous stream for many minutes together is quite a fallacy; it would indeed be a glorious target that would guarantee such a thing. In repelling an attack I can well imagine a gun getting rid of a thousand or more rounds in a very short time, and the same might occur at the crisis of any fight; but, with an officer standing over the gun and regulating the fire, we may generally assume that ammunition will be judiciously expended. Two mule loads—*i.e.*, 4,000 rounds in belts—is, I think, sufficient to carry with a gun, another two mule loads being with the regimental reserve ammunition.

There are, of course, many other questions of equipment which require solving, for instance, the carriage of water for the gun, spare parts of mechanism and tools for repair, range-finder, re-loading machine, etc., etc.; it is also important that selected mules be provided, together with efficient drivers, as in mountain batteries. But space forbids that I should go into these matters here. Suffice it to say, there is no insurmountable difficulty in the production of an equipment which would satisfy our soldiers and meet the requirements of active service.

Organisation.—The organisation of "machine guns" should, I think, be on very much the same lines as "army signalling."

The guns, including mules, saddles, etc., to be in regimental charge, both in peace and war, and to form a portion of regimental equipment, which, with the gun detachment, should be periodically inspected precisely as regimental signalling is done. Commanding officers cannot be expected to do this for machine guns any more than for signalling and for the same reason. It is only by some such method that a high standard of efficiency can be maintained.

The best strength for a Maxim gun detachment—men and mules (infantry) and men and horses (cavalry)—is a much debated question. Personally I think an infantry detachment, using pack saddle equipment, should consist of from four to six

mules and six men, and a cavalry detachment of three to four led horses. But this is too lengthy and technical a matter to discuss here.

The smallest detachment I recommend would consist of—

One mule, carrying gun and tripod mounting.

Two mules, each carrying 2,000 rounds (.303) in belts.

One mule spare.

Total four mules and 4,000 rounds ammunition.

Should wheels be carried, add one mule.

This small detachment would cause little inconvenience to an infantry battalion: indeed, two such detachments, giving a total of eight to ten mules and twelve men (exclusive of drivers), would not, I think, be an excessive complement. In addition to the above, two mule loads of ammunition, *i.e.*, 4,000 rounds per gun, should go with the regimental reserve ammunition.

But the question of ammunition has already been discussed, so I may pass on to drill and tactics.

Tactics.—The tactical use of machine guns is very simple. It is a weapon of opportunity—a concentrated musketry fire on a given objective, and any officer or non-commissioned officer, who is a bit of a "musketry man," and whose ideas are sound on the employment of musketry fire, should find no difficulty in making an intelligent use of machine guns.

A wise commander will always give his machine guns great latitude of action. At Suakin, where I worked a Maxim gun for some months with an infantry battalion, we found it best for the regiment to manœuvre as usual without taking any notice of what the gun might be doing; that to leave gaps for the gun in lines or squares was a mistake, and not only complicated infantry drill and was most annoying to company officers but might even lead to disaster in the case of a gap left at the corner of a square and the gun not turning up to fill it. We found it much better to fall a couple of files to the rear wherever the gun commander thought best to stick out the nose of his gun. At first there was much discussion as to the proper place for the gun, and various rules were made for its place both in drill and manœuvre. The result was that it was seldom where most required, was usually in somebody's way, and was generally voted a nuisance. In the end we found it very much better to leave everything to the discretion of the gun commander, and, so long as he did not get in the way or interfere with the movements of the regiment, allow him to "cut in" when and where he thought best. There are, of

course, occasions when it is necessary to give special orders to the gun commander; but, as a rule, the more he is left to his own devices the more likely is he to use his own initiative and common sense, and to produce his gun when and where most required: with a free hand, both the gun commander and the men under him will take the keenest pride in the successful handling of their guns.

I deprecate the placing of machine guns in skirmishing lines, preferring to see them close at hand under cover, from whence they can be called up when a target, worthy of their notice, presents itself. Gun commanders should keep well ahead, for ever on the look out for a chance. Fire being of very little use unless accurate, and the difficulty of getting the range being considerable, positions should be changed as seldom as possible after the range has been found. There is, however, one notable exception to this, and that is, when guns find they are attracting artillery fire: in this case the sooner they move on the better, for to allow artillery to get the range would probably spell annihilation. A few changes of position upsets artillery fire so much that I do not think machine guns are likely to suffer from it to any great extent; moreover, artillery will usually be employed in firing at some larger target and isolated machine guns firing smokeless powder, and for the most part under cover will seldom attract artillery fire.

It takes some time to select a position and get the range, and in the meantime our infantry may have advanced and passed the machine guns which may then have to fire over their heads; there is, I think, little danger in doing this—certainly not more than when artillery fire over infantry with the off chance of a “premature.” Indeed, with an officer or selected non-commissioned officer laying the machine gun and knowing all about the trajectory table, the danger to advancing infantry may be considered as practically *nil*. I think that occasions may arise when machine guns will, in the future, be used for long range fire to cover the advance of infantry. I do not say that all the guns of a force should be employed for long range fire, but a proportion of them might, on many occasions, be detailed for this duty, while the remainder push on with their battalions. In the same way, in the defence of a position, a certain number of guns might be used for long range fire, while the rest remain masked till the enemy reach landmarks, the ranges of which have previously been taken. The value of long range volleys is, to say the least of it, problematical—especially so the volleys of men themselves under

fire. As a substitute for long range volleys, I should employ machine gun fire, which is not only very much more accurate, but would also enable the men to go into action with their pouches full. But, as I said before, no hard-and-fast rules can be laid down for the use of machine guns any more than for the employment of musketry fire. The principles of musketry are, for the most part, those which must guide us in the use of machine guns: common sense and experience must do the rest.

I picture to myself the artillery of both sides engaged in pounding one another; our infantry advance to the attack; machine guns are dodging about with the advance, taking what cover they can find, and looking for useful positions and good targets; as each gun finds a position, it opens with trial shots; those that get the range remain where they are, and fire over the heads of our advancing infantry; others push on with the attacking force, watching and waiting their opportunity. Our infantry open fire, and the enemy reply aiming rather at the advancing lines than at the little guns, for the most part out of sight; but the little guns are gradually getting the range, for they can see the strike of a dozen bullets in one place and have range-finders to assist them. The fight developes, and the fire on all sides is incessant, and for the most part unaimed; the crisis approaches, and one side or the other must certainly give way in the next few minutes; most of the machine guns have, by this time, got the range; others have crept up into the firing line; they let themselves go, and at the critical moment of the fight pour an accurate and continued hail of bullets on the enemy, while our infantry push home the attack with the best result.

The Tirah Campaign was a singularly unfortunate one for machine guns. The enemy were dotted about in twos and threes, and seldom gave the Maxims a chance. The same, however, may be said for our infantry, and to this day it is a matter of speculation what the enemy's losses really were; on only one occasion did we catch them in any numbers in the open, and then there were no Maxims present. Employed against skirmishers under cover, machine guns will be found of little use: such, at any rate, was our experience in Tirah, and also, I believe, in Chitral and Jameson's Raid.

But, as I have already said, this is not their rôle, and no action worth mentioning has ever been decided by skirmishers. They will, however, be found useful to cover the retirement of infantry from the crest line of hills, and have on occasions

been effective in clearing out sangars. Skirmishers must be left for infantry to deal with, while the guns lay in wait for bigger game. Gun commanders must be patient ; if it is anything like a fight, they will surely find a target sooner or later, and then it is their own fault if they do not make their presence felt.

I will not touch on the use of machine guns in forts or field works, or for the defence of camps, bridges, roads, laagers, squares, etc. etc. ; their uses on such occasions are too well known to bear comment. It is, however, not generally known that by a simple method, I need not here describe, guns can make accurate shooting at night on any number of spots, say, approaches to a camp, the ranges of which have been taken during daylight.

With cavalry.—For cavalry it is sufficient to say that machine guns may be used as a supplement to, and sometimes as a substitute for, carbine fire.

Most cavalry officers will, I think, agree that dismounted fire is, in the present day, very often overdone, and that the true cavalry spirit is consequently in danger. Continental cavalry, with the exception of the Russian, are very particular on this point. The perpetual jumping off and on horses to fire a few rounds, and then galloping off to look for another position, or to get behind cover, is a perfect disease in some regiments, and most detrimental to a proper cavalry spirit. Were a few machine guns attached to cavalry, this danger would be eliminated. On most occasions, when dismounted fire is employed, a machine gun would not only do the work much better, but would also leave the cavalry to perform their more legitimate mounted duties, and we should then see less of cavalry spending their time in doing the work of mounted infantry. While at Suakin, we tried a Maxim gun on led horses with the 1st Bombay Lancers, and I usually manœuvred it like a horse artillery gun—galloping forward and to a flank and opening a rapid fire as the cavalry swept past to, alas ! an imaginary attack.

To do this satisfactorily, every second is of importance, or the advancing squadrons will be past and, perhaps, screen the fire of the gun ; but by the latest methods guns can open fire in from twenty to thirty seconds from the halting of the gun detachment, and this will usually suffice to get rid of a few hundred rounds before the fire becomes screened.

As a supplement to carbine fire, machine guns will, I think, form a substitute for mounted infantry and to a lesser extent—though I admit a poor one—for horse artillery. There is no

doubt that there are many occasions when a heavy rifle fire would add very much to the power of cavalry; carbine fire is weak and usually inaccurate—a thing which cannot be said of machine guns.

I see, in my imagination, a great fight, say, in the Soudan; the enemy have failed to face our fire and are in full retreat, and followed by long range volleys; our cavalry is let loose, but is too weak in numbers to attack thousands of spearmen still full of fight; a couple of cavalry Maxims gallop to an eminence which commands the retiring mob and pour in such a fire as converts the retreat into a terrified flight, and then our cavalry cut in, and—well, the curtain may now drop.

Are these things possible, or are they merely the phantasy of an optimistic enthusiast? Mind, I do not say that machine guns can do everything, but only that they may be found, on occasions, very useful, and that the possibilities for them are very great. Men's nerves will always be against accurate rifle shooting, and the more men are fired at the more "jumpy" they become, and the worse is their shooting.

What a distinguished author describes as the "catalepsy of fire" when men become so worn out and tired that it matters little whether they carry magazine rifles or pitchforks is a condition which is not likely to effect machine guns, and these are the very occasions on which their presence will be most felt.

I believe that these things are not only possible, but that in the near future we shall see them realised; that is, if—as usual all depends on that little word "if";—well, it does not seem much, if machine guns are put in the field properly equipped, and the men who use them are thoroughly instructed.

We may then see a not inappreciable adjunct to the fighting power of our troops, and then and then only will Lord Wolseley's prophecy be fulfilled.

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It should be further noted that this Balloon College Park contributed to a very large extent to the exhibition at Nishni Novgorod. The whole of the equipment used by the Fortress balloon detachments and a large quantity of life saving apparatus were exhibited in a special building. Most of the exhibits were originally invented and constructed in the Park itself. There were also photographs taken from balloons, and plans, maps, and reports of ascents, a programme of the course of training, and a quantity of literature on aerostatics in the Russian language.

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The assailants, however, succeeded in deceiving the enemy as to their intentions, and up till the last moment it was thought that the main attack would be directed against the right flank, whereas in reality only $2\frac{1}{2}$ battalions were engaged in that direction, the whole of the rest of the brigade operating against the left.

In his report the General remarked on the numerous and repeated tactical errors committed, and drew special attention to the slow advance made by the attacking force.

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The reasons for the working of this soft cover may be best shown by a simple experiment very easy of demonstration. Drive an ordinary sewing needle through a cork, until the point is just about to project through the lower surface. Put the cork on a penny or some firm surface, and give the needle a smart blow with a light hammer, and it will be found that the needle will go clean through the penny without breaking. The reason is this: the cork holding the needle steadily in one fixed spot, the whole force of the latter is concentrated on that spot. So it is with the soft cover or envelope. The point of the shell is maintained intact at the moment of striking, and the materials held together until the hard surface is penetrated. Besides this, the soft steel is melted by the heat engendered by the blow, and the aperture is made slippery.

During the trials last September, an 8-inch Holtzer shell, weighing 150 lbs., was at first fired at a Harveyised plate, at a velocity of 1,800 feet per second, when it burst and merely left a dent on the plate.

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The visual signalling stations at Laon and La Fère, the telegraph detachments of the first line, and the cavalry telegraphic apparatus, were also tested, so that everything was available as if on a field service scale.

Two battalions of the Soissons garrison took part in the manoeuvre for three days, forming a chain of outposts, and connected by telephone and telegraph with the advanced cavalry with a view to testing the respective merits and demerits of communication. The officers of the General Staff also carried out the duties that would devolve on them in the field.

New rules and regulations regarding field telegraphy and field telegraphic department are the subject of a report which is being drawn up, based on the above experiments.

From the "Militär Wochenblatt."

List of Essays received for the Gold Medal Competition, 1898.

- 1.....Nil Desperandum.
Teucro duce et auspice Teucro.
- 2.....That it might please you to give quiet pass
Through your dominions for this enterprise,
On such regards of safety, and allowance
As therein are set down.
(Hamlet. Scene II.)
- 3.....Spero meliora.
- 4.....A chain is no stronger than its weakest link.
- 5.....Salus populi maxima est lex.
- 6.....A little leaven leaveneth the whole Lump.
- 7.....Woe to the coward who sleeps,
When the darkness that bound him has flown.
- 8.....The spirit of an Army is in its officers.
- 9.....Dulce et decorum est pro patria mori.
- 10.....Doubles and Quits.
- 11.....Per Ardua. (Received too late.)

- 1872.....ROBERTS, Lieut.-Col. F. S., V.C., R.A.
 1873.....COLQUHOUN, Capt. J. A. S., R.A.
 1874.....COLQUHOUN, Capt. J. A. S., R.A.
 1879ST. JOHN, Maj. O. B. C., R.E.
 1880.....BARROW, Lieut. E. G., S.C.
 1882.....MASON, Lieut. A. H., R.E.
 1883.....COLLEN, Maj. E. H. H., S.C.
 1884.....BARROW, Capt. E. G., S.C.
 1887.....YATE, Lieut. A. C., S.C.
 1888.....MAUDE, Capt. F. N., R.E.
 YOUNG, Maj. G. F., S.C. (specially awarded a silver medal)
 1889.....DUFF, Capt. B., S.C.
 1890.....MAGUIRE, Capt. C. M., S.C.
 1891.....CARDEW, Lieut. F. G., S.C.
 1893.....BULLOCK, Maj. G. M., Devon. Regt.
 1894.....CARTER, Capt. F. C., Northumberland Fusiliers.
 1895.....NEVILLE, Lieut.-Col. J. P. C., S.C.
 1896.....BINGLEY, Capt. A. H., S.C.
 1897.....NAPIER, Capt. G. S. F., 2nd Bn. Oxfordshire Light Infantry

MacGregor Memorial Silver Medallists.

- 1889.....BELL, Col. M. S., V.C., R.E. (specially awarded a gold medal)
 1890.....YOUNGHU BAND, Capt. F. E., K. Dn. Gds.
 1891.....SAWYER, Maj. H. A., S.C.
 1891.....RAMZAN KHAN, Havildar, 3rd Sikhs.
 1892.....VAUGHAN, Capt. H. B., S.C.
 1892.....JAGGAT SINGH, Havildar, 10th P. I.
 1893BOWER, Capt. H., S.C. (specially awarded a gold medal)
 1893FAZALDAD KHAN, Havildar, 17th B. C.
 1894O SULLIVAN, Maj. G. H. W., R.E.
 1894.....MULL SINGH, Sowar, 6th B. C.
 1895DAVIES, Capt., Oxfordshire Light Infy.
 1895.....GUNGA DYAL SINGH, Havildar, 2nd B. I.
 1896.....COCKERILL, Lieut. G. K., 28th P. I.
 1896.....GHULAM NABI, Private, Q. O. Corps of Guides.
 1897.....SWAYNE, Capt. E. J. E., 16th B. I.
 1897.....SHAHZAD MIR, Dafadar, 11th B. L.

The Journal
OF THE
United Service Institution of India.

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1898.

NO. 132.

THE STORY OF TIRAH, AND,
THE LESSONS OF THE CAMPAIGN.

By COLONEL H. D. HUTCHINSON,
Director of Military Education in India.

Tuesday, 28th June, 1898.

MAJOR-GENERAL SIR EDWIN COLLEN, K.C.I.E., C.B.,
IN THE CHAIR.

PART I.

SIR EDWIN COLLEN, YOUR EXCELLENCY,
LADIES, AND GENTLEMEN,

I have been told by so many people that I ought not to let the Simla season pass without giving a lecture on Tirah, that I have yielded to the friendly suggestions made to me on many sides, and I propose this afternoon to give you as briefly as may be an outline of the operations which have recently attracted so much attention: and to put before you some of the practical lessons which, it seems to me, are to be learned from the experiences which our troops went through, in the wild regions lately traversed by them.

I have always held that lectures given during the Simla season, under the auspices of the United Service Institution of India, should be essentially of a *popular* character. I mean by

C

been effective in clearing out sangars. Skirmishers must be left for infantry to deal with, while the guns lay in wait for bigger game. Gun commanders must be patient; if it is anything like a fight, they will surely find a target sooner or later, and then it is their own fault if they do not make their presence felt.

I will not touch on the use of machine guns in forts or field works, or for the defence of camps, bridges, roads, lagers, squares, etc. etc.; their uses on such occasions are too well known to bear comment. It is, however, not generally known that by a simple method, I need not here describe, guns can make accurate shooting at night on any number of spots, say, approaches to a camp, the ranges of which have been taken during daylight.

With cavalry.—For cavalry it is sufficient to say that machine guns may be used as a supplement to, and sometimes as a substitute for, carbine fire.

Most cavalry officers will, I think, agree that dismounted fire is, in the present day, very often overdone, and that the true cavalry spirit is consequently in danger. Continental cavalry, with the exception of the Russian, are very particular on this point. The perpetual jumping off and on horses to fire a few rounds, and then galloping off to look for another position, or to get behind cover, is a perfect disease in some regiments, and most detrimental to a proper cavalry spirit. Were a few machine guns attached to cavalry, this danger would be eliminated. On most occasions, when dismounted fire is employed, a machine gun would not only do the work much better, but would also leave the cavalry to perform their more legitimate mounted duties, and we should then see less of cavalry spending their time in doing the work of mounted infantry. While at Suakin, we tried a Maxim gun on led horses with the 1st Bombay Lancers, and I usually manœuvred it like a horse artillery gun—galloping forward and to a flank and opening a rapid fire as the cavalry swept past to 'alas' an imaginary attack.

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been effective in clearing out sangars. Skirmishers must be left for infantry to deal with, while the guns lay in wait for bigger game. Gun commanders must be patient; if it is anything like a fight, they will surely find a target sooner or later, and then it is their own fault if they do not make their presence felt.

I will not touch on the use of machine guns in forts or field works, or for the defence of camps, bridges, roads, villages, squares, etc. etc.; their uses on such occasions are too well known to bear comment. It is, however, not generally known that by a simple method, I need not here describe, guns can make accurate shooting at night on any number of spots; say, approaches to a camp, the ranges of which have been taken during daylight.

With cavalry.—For cavalry it is sufficient to say that machine guns may be used as a supplement to, and sometimes as a substitute for, carbine fire.

Most cavalry officers will, I think, agree that dismounted fire is, in the present day, very often overdone, and that the true cavalry spirit is consequently in danger. Confidential cavalry, with the exception of the Russian, are very peculiar on this point. The perpetual jumping off and on horses to fire a few rounds, and then galloping off to look for another position, or to get behind cover, is a perfect disease in some regiments, and most detrimental to a proper cavalry spirit. Were a few machine guns attached to cavalry, this danger would be eliminated. On most occasions, when dismounted fire is employed, a machine gun would not only do the work much better, but would also leave the cavalry to perform their more legitimate mounted duties, and we should then see less of cavalry spending their time in doing the work of mounted infantry. While at Suakin, we tried a Maxim gun on field horses with the 1st Bombay Lancers, and I usually manœuvred it like a horse artillery gun—galloping forward and to a flank and opening a rapid fire as the cavalry swept past to, alas! an imaginary attack.

To do this satisfactorily, every second is of importance, or the advancing squadrons will be past and, perhaps, unseen the fire of the gun; but by the latest methods guns can open fire in from twenty to thirty seconds from the halting of the gun detachment, and this will usually suffice to get rid of a few hundred rounds before the fire becomes screened.

As a supplement to carbine fire, machine guns will, I think, form a substitute for mounted infantry and to a lesser extent—though I admit a poor one—for horse artillery. There is no

doubt that there are many occasions when a heavy rifle fire would add very much to the power of cavalry; carbine fire is weak and usually inaccurate—a thing which cannot be said of machine guns.

I see, in my imagination, a great fight, say, in the Soudan; the enemy have failed to face our fire and are in full retreat, and followed by long range volleys; our cavalry is let loose, but is too weak in numbers to attack thousands of spearmen still full of fight; a couple of cavalry Maxims gallop to an eminence which commands the retiring mob and pour in such a fire as converts the retreat into a terrified flight, and then our cavalry cut in, and—well, the curtain may now drop.

Are these things possible, or are they merely the phantasy of an optimistic enthusiast? Mind, I do not say that machine guns can do everything, but only that they may be found, on occasions, very useful, and that the possibilities for them are very great. Men's nerves will always be against accurate rifle shooting, and the more men are fired at the more "jumpy" they become, and the worse is their shooting.

What a distinguished author describes as the "catalepsy of fire" when men become so worn out and tired that it matters little whether they carry magazine rifles or pitchforks is a condition which is not likely to effect machine guns, and these are the very occasions on which their presence will be most felt.

I believe that these things are not only possible, but that in the near future we shall see them realised; that is, if—as usual all depends on that little word "if";—well, it does not seem much, if machine guns are put in the field properly equipped, and the men who use them are thoroughly instructed.

We may then see a not inappreciable adjunct to the fighting power of our troops, and then and then only will Lord Wolseley's prophesy be fulfilled.

**SOME FOREIGN ARTICLES OF SPECIAL INTEREST
CONTRIBUTED BY THE INTELLIGENCE BRANCH
TRANSLATED BY P. H.**

**ASCENT OF A SQUADRON OF WAR BALLOONS AT
ST. PETERSBURG.**

The "Invalide," No. 222 of 1896, gives an account of an interesting experiment carried out by some officers of the Balloon College Park at the termination of their final examination, with a view to qualifying them in the management of *non-captive* balloons.

On 14th October at 12-30 P.M. the three balloons—the "Nadjäschny," "Kobtschik," and "Smaloi"—ascended simultaneously by word of command from the Commandant of the Park. Each balloon contained 640 cubic metres of ordinary gas, and there were two officers in each car.

The weather was favourable, with a north wind.

The direction and rapidity of the cumulus clouds were observed beforehand and found to be about 30 versts (19 miles) an hour. The carrying capacity of each balloon was almost the same. Four bags of ballast were taken.

Before ascending an order was given to rise to at least 1,000 metres (3,280 feet).

The "Kobtschik" rose first, and then the "Nadjäschny"—the latter's cable catching in the "Smaloi." At 200 metres (650 feet) the "Smaloi" overhauled the "Nadjäschny," passing so close to the former's car that the crew of the latter had to push it off with their hands, and throw out ballast in order to rise higher. This critical position lasted for nearly five minutes.

Before reaching 1,000 metres the "Smaloi" and "Kobtschik" had used two bags of ballast and the "Nadjäschny" all three. The whole squadron then proceeded in a southerly direction at a height of 1,400 to 1,600 metres. They were so close to one another that the crews were able to converse regarding the supply of ballast. No ballast was expended for fifteen minutes after reaching the maximum height referred to above. It was not until the second portion of the journey that the balloons separated. The "Nadjäschny" was the first to descend in a clearing in the forest, 7 versts east of Gatschina, at 2-11 P.M.

having travelled 45 versts, including 5 versts with the cable. At 4.3 P.M. the "Kobtschik" landed also in a wood, having traversed 70 versts. The rope having caught in a tree, however, the aeronauts were about an hour floating about above the wood.

The "Smaloi" landed at 4.8 P.M., after a journey of 60 versts, in a dry spot in a wood. Their rope also caught in the trees, and the balloon had to be pulled down with the aid of peasants. The occupants had been enabled to see the landing of the "Nadjäschny" and mark the exact spot on the map.

All three balloons thus descended uninjured at a distance of 10—15 versts from one another.

It should be further noted that this Balloon College Park contributed to a very large extent to the exhibition at Nishni Novgorod. The whole of the equipment used by the Fortress balloon detachments and a large quantity of life saving apparatus were exhibited in a special building. Most of the exhibits were originally invented and constructed in the Park itself. There were also photographs taken from balloons, and plans, maps, and reports of ascents, a programme of the course of training, and a quantity of literature on aerostatics in the Russian language.

It is scarcely necessary here to enumerate the numerous inventions and improvements made by Russian Specialists, mostly officers of the Permanent Park Establishment, such as estimation of rate of wind, course of the balloon at various altitudes, manufacture, filling, and transport of balloons, optical instruments, arrangements for safety, etc. We will merely conclude by quoting the words of the writer in the "Invalides"—

"It must be acknowledged that the science of ballooning in Russia is steadily advancing, and that our army is in this respect quite as efficient as any other. Since the Park was established ten years ago, not a single accident has happened during all the ascents, which is more than can be said as regards other countries. In many respects Russian military ballooning is, without exaggeration, far ahead of all others, more especially as regards knowledge of the atmosphere and use of air currents."

From the "Militär Wochenblatt."

INTERESTING NIGHT MANŒUVRES NEAR WARSAW.

Some interesting night operations were conducted by General Count Schuvaloff, Commanding the Warsaw District,

on 20th—21st August. The opposing forces consisted each of one infantry brigade, the attacking force having two field artillery detachments and a horse artillery battery, while the defenders only had one field detachment.

The scheme was as follows :—

The Magazine in Lublin was to be defended, while the attacking force was to start from a point 16 versts distant, and attack the defenders. Their march was timed to commence at midnight with a view to the collision taking place at dawn.

The advance was, however, so delayed that the enemy's outposts were not reached until daybreak, and the fight did not commence until it was fully daylight.

The assailants, however, succeeded in deceiving the enemy as to their intentions, and up till the last moment it was thought that the main attack would be directed against the right flank, whereas in reality only $2\frac{1}{2}$ battalions were engaged in that direction, the whole of the rest of the brigade operating against the left.

In his report the General remarked on the numerous and repeated tactical errors committed, and drew special attention to the slow advance made by the attacking force.

The manœuvres were of interest however, showing, as they did, the great element of chance connected with all night operations in the field.

From the "Heeres-Zeitung."

BIG GUNS VERSUS ARMOUR PLATING.

The penetration of a 10-inch nickel steel plate with hardened surface by a 6-inch shell, during some trials held in the United States last September, was in itself a phenomenal performance and proved again the superiority of the gun to armour plating. But if we are to believe the reports of the "Scientific American," the performance was more marvellous than this. It is stated that, after penetrating the plate, the shell went through 12 inches of oak, three $\frac{1}{8}$ th inch boiler plates, and was found practically uninjured 8 feet deep in the butt.

It must be remembered that when armour plate manufacturers lost heart on seeing the ease with which guns were made to pierce the very toughest nickel steel, Harvey succeeded

in providing plates with a marvellously hard surface, on which projectiles burst at the moment of striking. Projectiles which theoretically were supposed to penetrate a Harveyised plate could not really do so owing to their points not being long enough to hold together while penetrating the hardened surface. Moreover, the latter was so extraordinarily hard that it would cut glass just in the same way as a diamond.

Shell manufacturers then tried to solve the riddle as to how to make a projectile combining the required hardness and tenacity to split the hardened surface in question and penetrate the plate without bursting. A few of the first attempts were partially successful. Holtzer in Europe, and Sterling-Wheeler in America, succeeding in splitting the hardened surface. They failed, however, in the second portion of the task, as the shell usually burst before it had quite penetrated the plate. This was found to be invariably the case when firing at an improved Harveyised plate. For some months this was thought to have decided the question, but Artillerists refused to let the matter rest there, and eventually hit upon a peculiar but most successful plan. The point of the projectile was fitted with a soft steel cover, which, strange as it may seem, enabled it to successfully penetrate the plate.

The reasons for the working of this soft cover may be best shown by a simple experiment very easy of demonstration. Drive an ordinary sewing needle through a cork, until the point is just about to project through the lower surface. Put the cork on a penny or some firm surface, and give the needle a smart blow with a light hammer, and it will be found that the needle will go clean through the penny without breaking. The reason is this: the cork holding the needle steadily in one fixed spot, the whole force of the latter is concentrated on that spot. So it is with the soft cover or envelope. The point of the shell is maintained intact at the moment of striking, and the materials held together until the hard surface is penetrated. Besides this, the soft steel is melted by the heat engendered by the blow, and the aperture is made slippery.

During the trials last September, an 8-inch Holtzer shell, weighing 150 lbs., was at first fired at a Harveyised plate, at a velocity of 1,800 feet per second, when it burst and merely left a dent on the plate.

The second time a 6-inch 100lb. Johnson shell, toughened and hardened by some special secret process, was fired at a velocity of 2,100 feet per second (firing charge, brown powder). This shell penetrated 8 inches, the rear portion breaking off

and rebounding from the target. Johnson being of opinion that a greater velocity would enable the shell to penetrate entirely, fired the second shot with 28 lbs. of smokeless torpedo powder, giving a velocity of 2,505 feet per second, the result being as expected.

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Prize Essay Gold Medallists.

- 1872.....ROBERTS, Lieut.-Col. F. S., V.C., R.A.
 1873.....COLQUHOUN, Capt. J. A. S., R.A.
 1874.....COLQUHOUN, Capt. J. A. S., R.A.
 1879ST. JOHN, Maj. O. B. C., R.E.
 1880.....BARROW, Lieut. E. G., S.C.
 1882.....MASON, Lieut. A. H., R.E.
 1883.....COLLEN, Maj. E. H. H., S.C.
 1884.....BARROW, Capt. E. G., S.C.
 1887.....YATE, Lieut. A. C., S.C.
 1888.....MAUDE, Capt. F. N., R.E.
 YOUNG, Maj. G. F., S.C. (specially awarded a silver medal).
 1889.....DUFF, Capt. B., S.C.
 1890.....MAGUIRE, Capt. C. M., S.C.
 1891.....CARDEW, Lieut. F. G., S.C.
 1893.....BULLOCK, Maj. G. M., Devon. Regt.
 1894.....CARTER, Capt. F. C., Northumberland Fusiliers.
 1895.....NEVILLE, Lieut.-Col. J. P. C., S.C.
 1896.....BINGLEY, Capt. A. H., S.C.
 1897.....NAPIER, Capt. G. S. F., 2nd Bn. Oxfordshire Light Infantry.

MacGregor Memorial Silver Medallists.

- 1889.....BELL, Col. M. S., V.C., R.E. (specially awarded a gold medal).
 1890.....YOUNGHUSBAND, Capt. F. E., K. Dn. Gds.
 1891.....SAWYER, Maj. H. A., S.C.
 1891.....RAMZAN KHAN, Havildar, 3rd Sikhs.
 1892.....VAUGHAN, Capt. H. B., S.C.
 1892.....JAGGAT SINGH, Havildar, 19th P. I.
 1893.....BOWER, Capt. H., S.C. (specially awarded a gold medal).
 1893.....FAZALDAD KHAN, Dafadar, 17th B. C.
 1894.....O'SULLIVAN, Maj. G. H. W., R.E.
 1894.....MULL SINGH, Sowar, 6th B. C.
 1895.....DAVIES, Capt., Oxfordshire Light Infy.
 1895.....GUNGA DYAL SINGH, Havildar, 2nd B. I.
 1896.....COCKERILL, Lieut. G. K., 28th P. I.
 1896.....GHULAM NABI, Private, Q. O. Corps of Guides.
 1897.....SWAYNE, Capt. E. J. E., 16th B. I.
 1897.....SHAHZAD MIR, Dafadar, 11th B. L.

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OF THE
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VOL. XXVII.

1898.

NO. 132.

THE STORY OF TIRAH, AND,
THE LESSONS OF THE CAMPAIGN.

By COLONEL H. D. HUTCHINSON,
Director of Military Education in India.

Tuesday, 28th June, 1898.

MAJOR-GENERAL SIR EDWIN COLLEN, K.C.I.E., C.B.,
IN THE CHAIR.

PART I.

SIR EDWIN COLLEN, YOUR EXCELLENCY,
LADIES, AND GENTLEMEN,

I have been told by so many people that I ought not to let the Simla season pass without giving a lecture on Tirah, that I have yielded to the friendly suggestions made to me on many sides, and I propose this afternoon to give you as briefly as may be an outline of the operations which have recently attracted so much attention: and to put before you some of the practical lessons which, it seems to me, are to be learned from the experiences which our troops went through, in the wild regions lately traversed by them.

I have always held that lectures given during the Simla season, under the auspices of the United Service Institution of India, should be essentially of a *popular* character. I mean by

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that, that as far as possible, the technical or purely professional element should be eliminated from them, and the aim should be to interest as much as to instruct, and so to attract large audiences which shall include civilians as well as soldiers: and ladies too, who, I observe, frequently honour us now with their presence. In this way, I believe we can gain for the Institution increased respect and attention: and, by describing campaigns and expeditions in popular terms—particularly those in which our own troops have borne an honourable part—we may do much towards the promotion of useful knowledge, we may stimulate people to read and inquire for themselves, and we may, generally speaking, extend widely the sphere of usefulness of this Institution, at the same time that we add to its popularity, and attract members who will support its aims and objects.

These being my views, you will understand that I purpose nothing this evening in the shape of a detailed or professional account of the expedition against the Afridis: nor shall I indulge in any critical comment on those debateable episodes of the campaign which have already been dilated on in papers and magazines with a freedom and frankness peculiar to the correspondent who gets most of his facts on hearsay, and publishes them without any signature. Indeed anything of that kind would not be permissible in this assemblage. I propose only to give you a bare outline of the principal events and incidents of the campaign: and then to dwell upon some of the most obvious of the tactical lessons which it teaches. And, even here, I shall be extremely brief, in order to afford as much time as possible for the discussion which is to follow, which I am confident will be the most interesting, and instructive part of the evening's programme.

And now, to begin at the beginning—

What was all the trouble about? Why did we attack the Afridis and Orakzais? Why did we invade their country, and launch this great expedition against them? To answer these questions satisfactorily, we must go back a little further in the history of these events, and ask: Why did *they* attack *us*? For they were the first aggressors. The Afridis commenced the grim game by assaulting our Forts in the Khyber on the 23rd August last: and the Orakzais followed suit a day or two later by assailing our positions on the Samana, and in the Kurram valley. These attacks had been preceded, as of course you all know, by the Maizar outrage in the Tochi valley on the 10th June the desperate attacks on the Malakhand and

Chakdara on the 27th July, and the Mohmand outbreak on the 9th August.

Now what was the cause of this wide-spread conflagration? What was its origin? What started the blaze? What fed the flames, and fanned them into fury? Well Ladies and Gentlemen, I am convinced that if I were now to provide you all with slips of paper and pencils, and ask each of you to write out answers to these questions, we should have a collection of opinions and impressions, as diverse as they would be, I am sure, interesting, and instructive. Under these circumstances, it would be, presumptuous for me to say that this was the cause of the outbreak, or that. All that I will venture to do, is to state for your consideration some of the *alleged* causes of the most serious, and the most wide-spread frontier revolt that has ever taxed the resources of the Indian Government, or put to the proof the skill of our Generals, and the valour and endurance of our troops: and you must decide, each of you for yourselves, which of them was at the root of the business, and in what degree each of the rest of them contributed to the general result.

First then, there was the Boundary agreement, commonly known as the Durand agreement, made with the Amir in 1893. The object of it was to fix, in a friendly way, a definite boundary between Afghanistan and India, so that in future whenever any of the tribes should prove turbulent or troublesome, it could be settled at once which Power was responsible, or which should have the right to interfere and wheel it into line. It was, however, one thing to agree mutually to a boundary, but quite another matter to actually demarcate it in that wild borderland. We made a beginning in Waziristan in the autumn of 1894, and the immediate consequence was—WANA! Certain sections of the Waziris objected to our presence in their country, and this was their practical way of lodging their protest. They attacked the Boundary Commission Camp on the 3rd November, and it was not until many months later, when an expedition had been sent against them, and the country had been traversed in every direction by our troops, that they yielded to the inevitable, and permitted the boundary to be staked out.

The fact is that these wild untutored tribesmen are jealous of their independence, and sensitive about intrusion and interference, to a degree which many of us do not, and cannot appreciate. You may protest and explain as much as you like, but you cannot convince them, when once you have ventured into their country, that your motives are purely philanthropical, and your plans solely for their good. Their motto is—

Timeo Danaos, et dona ferentes.

that, that as far as possible, the technical or purely professional element should be eliminated from them, and the aim should be to interest as much as to instruct, and so to attract large audiences which shall include civilians as well as soldiers: and ladies too, who, I observe, frequently honour us now with their presence. In this way, I believe we can gain for the Institution increased respect and attention: and, by describing campaigns and expeditions in popular terms—particularly those in which our own troops have borne an honourable part—we may do much towards the promotion of useful knowledge: we may stimulate people to read and inquire for themselves, and we may, generally speaking, extend widely the sphere of usefulness of this Institution, at the same time that we add to its popularity, and attract members who will support its aims and objects.

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They see the long line of white pillars going up : they watch our surveyors busy making maps : and they put only one construction on our action. They believe that their freedom and liberty are threatened : that inside that row of posts the great *Sirkar* will now claim sovereignty, and exercise lordship : and that maps and plans are being prepared chiefly with the view to the assessment of revenue. If they don't believe all this spontaneously, it is assiduously dinned into them by their *Mullahs*, and *Maliks*, and by interested persons on both sides of the border : and to preaching of this kind these credulous and fanatical people will ever lend a ready ear.

This then, you will understand, is alleged as one of the grounds on which the Tribes on our Frontier *may* have based their revolt—the idea that the boundary laid down by us between India, and the Kingdom of the Amir, was a menace to their independence.

Another ground was *fanaticism*. But what is fanaticism ? It is religious exaltation or excitement. The agents by whom this sentiment is aroused, by whom the people are worked into that state of fine frenzy which makes them for the time incapable of listening to reason or right, are the *Mullahs*, and their pupils, the priesthood of Islam. But great as is their influence, they would preach in vain, and their exhortations would be fruitless, unless on some other basis than mere religion, a spirit of distrust and unrest was already abroad. In the present instance, it seems probable that the Boundary question, coupled with recent developments on the Frontier, alarmed the Tribes seriously, and gave the *Mullahs* an opportunity which they were quick to seize, to preach a general rising, and a *jehád*, or holy war, against the English. The seed of revolt being sown in ground fertilised by such considerations as these, it is small wonder that the crop should be a bumper one : and we have only to reflect that from Boner and Swat in the East and North, to the Tochi, and even beyond it, in the South and West, the whole Frontier was in arms against us, to admit that the *Mullahs* chose their time well, and that they preached with signal success, and to understand exactly what is meant by religious fanaticism.

Amongst minor alleged causes which contributed to the rising were the increase in the salt tax, and the assertion that Afridi women who deserted their lords, and took refuge in Peshawar, were not at once given up by our Government : also, the foolish hopes and beliefs created by Turkish victories over the Greeks in the plains of Thessaly. But it is doubtful if any of these

causes had really much to say either to the origin of the out-break, or to its encouragement, and continuance, when once it had started.

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Prize Essay Gold Medallists.

- 1872.....ROBERTS, Lieut.-Col. F. S., V.C., R.A.
 1873.....COLQUHOUN, Capt. J. A. S., R.A.
 1874.....COLQUHOUN, Capt. J. A. S., R.A.
 1879ST. JOHN, Maj. O. B. C., R.E.
 1880.....BARROW, Lieut. E. G., S.C.
 1882.....MASON, Lieut. A. H., R.E.
 1883.....COLLEN, Maj. E. H. H., S.C.
 1884.....BARROW, Capt. E. G., S.C.
 1887.....YATE, Lieut. A. C., S.C.
 1888.....MAUDE, Capt. F. N., R.E.
 YOUNG, Maj. G. F., S.C. (specially awarded a silver medal).
 1889.....DUFF, Capt. B., S.C.
 1890.....MAGUIRE, Capt. C. M., S.C.
 1891.....CARDEW, Lieut. F. G., S.C.
 1893.....BULLOCK, Maj. G. M., Devon. Regt.
 1894.....CARTER, Capt. F. C., Northumberland Fusiliers.
 1895.....NEVILLE, Lieut.-Col. J. P. C., S.C.
 1896.....BINGLEY, Capt. A. H., S.C.
 1897.....NAPIER, Capt. G. S. F., 2nd Bn. Oxfordshire Light Infantry.

MacGregor Memorial Silver Medallists.

- 1889.....BELL, Col. M. S., V.C., R.E. (specially awarded a gold medal).
 1890.....YOUNGHUSBAND, Capt. F. E., K. Dn. Gds.
 1891.....SAWYER, Maj. H. A., S.C.
 1891.....RAMZAN KHAN, Havildar, 3rd Sikhs.
 1892.....VAUGHAN, Capt. H. B., S.C.
 1892.....JAGGAT SINGH, Havildar, 19th P. I.
 1893.....BOWER, Capt. H., S.C. (specially awarded a gold medal).
 1893.....FAZALDAD KHAN, Dafadar, 17th B. C.
 1894.....O'SULLIVAN, Maj. G. H. W., R.E.
 1894.....MULL SINGH, Sowar, 6th B. C.
 1895.....DAVIES, Capt., Oxfordshire Light Infy.
 1895.....GUNGA DYAL SINGH, Havildar, 2nd B. I.
 1896.....COCKERILL, Lieut. G. K., 28th P. I.
 1896.....GHULAM NABI, Private, Q. O. Corps of Guides.
 1897.....SWAYNE, Capt. E. J. E., 16th B. I.
 1897.....SHAHZAD MIR, Dafadar, 11th B. L.

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NO. 132.

**THE STORY OF TIRAH, AND,
THE LESSONS OF THE CAMPAIGN.**

By **COLONEL H. D. HUTCHINSON,**
Director of Military Education in India.

Tuesday, 28th June, 1898.

**MAJOR-GENERAL SIR EDWIN COLLEN, K.C.I.E., C.B.,
IN THE CHAIR.**

PART I.

**SIR EDWIN COLLEN, YOUR EXCELLENCY,
LADIES, AND GENTLEMEN,**

I have been told by so many people that I ought not to let the Simla season pass without giving a lecture on Tirah, that I have yielded to the friendly suggestions made to me on many sides, and I propose this afternoon to give you as briefly as may be an outline of the operations which have recently attracted so much attention: and to put before you some of the practical lessons which, it seems to me, are to be learned from the experiences which our troops went through, in the wild regions lately traversed by them.

I have always held that lectures given during the Simla season, under the auspices of the United Service Institution of India, should be essentially of a *popular* character. I mean by

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that, that as far as possible, the technical or purely professional element should be eliminated from them, and the aim should be to interest as much as to instruct, and so to attract large audiences which shall include civilians as well as soldiers: and ladies too, who, I observe, frequently honour us now with their presence. In this way, I believe we can gain for the Institution increased respect and attention: and, by describing campaigns and expeditions in popular terms—particularly those in which our own troops have borne an honourable part—we may do much towards the promotion of useful knowledge: we may stimulate people to read and inquire for themselves, and we may, generally speaking, extend widely the sphere of usefulness of this Institution, at the same time that we add to its popularity, and attract members who will support its aims and objects.

These being my views, you will understand that I propose nothing this evening in the shape of a detailed or professional account of the expedition against the Afridis: nor shall I indulge in any critical comment on those debateable episodes of the campaign which have already been dilated on in papers and magazines with a freedom and frankness peculiar to the correspondent who gets most of his facts on hearsay, and publishes them without any signature. Indeed anything of that kind would not be permissible in this assembly. I propose only to give you a bare outline of the principal events and incidents of the campaign: and then to dwell upon some of the most obvious of the tactical lessons which it teaches. And, even here, I shall be extremely brief, in order to afford as much time as possible for the discussion which is to follow, which I am confident will be the most interesting and instructive part of the evening's programme.

And now, to begin at the beginning—

What was all the trouble about? Why did we attack the Afridis and Orakzais? Why did we invade their country, and launch this great expedition against them? To answer these questions satisfactorily, we must go back a little further in the history of these events, and ask: Why did *they* attack *us*? For they were the first aggressors. The Afridis commenced the grim game by assaulting our Forts in the Khyber on the 2nd August last: and the Orakzais followed suit a day or two later by assailing our positions on the Sulaiman and in the Kurram valley. These attacks had been preceded, as of course you all know, by the Maizar outrage in the Tacht valley on the 10th June: the desperate attacks on the Malakhand and

Chakdara on the 27th July, and the Mohmand outbreak on the 9th August.

Now what was the cause of this wide-spread conflagration? What was its origin? What started the blaze? What fed the flames, and fanned them into fury? Well Ladies and Gentlemen, I am convinced that if I were now to provide you all with slips of paper and pencils, and ask each of you to write out answers to these questions, we should have a collection of opinions and impressions, as diverse as they would be, I am sure, interesting, and instructive. Under these circumstances, it would be, presumptuous for me to say that this was the cause of the outbreak, or that. All that I will venture to do, is to state for your consideration some of the *alleged* causes of the most serious, and the most wide-spread frontier revolt that has ever taxed the resources of the Indian Government, or put to the proof the skill of our Generals, and the valour and endurance of our troops: and you must decide, each of you for yourselves, which of them was at the root of the business, and in what degree each of the rest of them contributed to the general result.

First then, there was the Boundary agreement, commonly known as the Durand agreement, made with the Amir in 1893. The object of it was to fix, in a friendly way, a definite boundary between Afghanistan and India, so that in future whenever any of the tribes should prove turbulent or troublesome, it could be settled at once which Power was responsible, or which should have the right to interfere and wheel it into line. It was, however, one thing to agree mutually to a boundary, but quite another matter to actually demarcate it in that wild border land. We made a beginning in Waziristan in the autumn of 1894, and the immediate consequence was—WANA! Certain sections of the Waziris objected to our presence in their country, and this was their practical way of lodging their protest. They attacked the Boundary Commission Camp on the 3rd November, and it was not until many months later, when an expedition had been sent against them, and the country had been traversed in every direction by our troops, that they yielded to the inevitable, and permitted the boundary to be staked out.

The fact is that these wild untutored tribesmen are jealous of their independence, and sensitive about intrusion and interference, to a degree which many of us do not, and cannot appreciate. You may protest and explain as much as you like, but you cannot convince them, when once you have ventured into their country, that your motives are purely philanthropical, and your plans solely for their good. Their motto is—

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This then, you will understand, is alleged as one of the grounds on which the Tribes on our Frontier *may* have based their revolt—the idea that the boundary laid down by us between India, and the Kingdom of the Amir, was a menace to their independence.

Another ground was *fanaticism*. But what is fanaticism? It is religious exaltation or excitement. The agents by whom this sentiment is aroused, by whom the people are worked up to that state of fine frenzy which makes them for the time incapable of listening to reason or right, are the *Mullahs*, and their pupils, the priesthood of Islam. But great as is their influence, they would preach in vain, and their exhortations would be fruitless, unless on some other basis than mere religion, a spirit of distrust and unrest was already abroad. In the present instance, it seems probable that the Boundary question, coupled with recent developments on the Frontier, alarmed the Tribes seriously, and gave the *Mullahs* an opportunity which they were quick to seize, to preach a general rising, and a *jehād*, or holy war, against the English. The seed of revolt being sown on ground fertilised by such considerations as these, it is not wonder that the crop should be a bumper one: and we have only to reflect that from Boner and Swat in the East and North, to the Tochi, and even beyond it, in the South and West, the whole Frontier was in arms against us, to admit that the *Mullahs* chose their time well, and that they preached with signal success, and to understand exactly what is meant by religious fanaticism.

Amongst minor alleged causes which contributed to the rising were the increase in the salt tax, and the assertion that Afghan women who deserted their lords, and took refuge in Peshwar, were not at once given up by our Government. Also, the French hopes and beliefs created by Turkish victories over the Greeks in the plains of Thessaly. But it is doubtful if any of these

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Thus the invasion of Tirah meant immense efforts in the way of preparation, and when we recollect that at this same period the Government of India had on their hands quarrels with the Mohmands, the Mamunds, the Swatis, and Boners, and had to guard against, at least the *possibility* of still more serious complications in other directions, I think, we may be permitted to congratulate those who under their orders toiled in the office, and in the field, through those trying August-September days with such success that early in October they had an army ranged and ready for action, which aggregated in round numbers all told 35,000 fighting men, upwards of 20,000 followers, and some 30,000 transport animals.

To guard against misapprehension as to the actual numbers available under Sir William Lockhart's personal command for the operations in Tirah, I must explain that the large total of 35,000 fighting men included in the Expeditionary Force was made up and distributed thus—

| | | | |
|---------------------------------|-----|-----|----------------------|
| The Main Column | ... | ... | 18,700 of all ranks. |
| Line of Communications... | ... | ... | 5,400 " |
| The Peshawar Column | ... | ... | 4,500 " |
| The Kurram Column | ... | ... | 2,600 " |
| The Rawal Pindi Reserve Brigade | ... | ... | 3,800 " |
| Total | | | ... |
| | | | <u>35,000</u> " |

These figures naturally fluctuated from time to time as circumstances necessitated, but they fairly represent the average strength of each section.

It is perhaps hardly necessary here to mention the Commanders, so well are they all known. But as this lecture will be read probably elsewhere, I may briefly state that the Command-in-Chief of the Expedition was entrusted to General Sir William Lockhart, with General Nicholson as Chief of the Staff. The Main Column, with the operations of which we are chiefly concerned, was composed of two Divisions, of which the second was commanded by Major-General Yeatman-Biggs—who succumbed to the hardships of the campaign,—the first by Major-General Symons; while the Brigadiers were Brigadier-Generals Hart, Gaselee, Kempster, and Westmacott. The artillery, six mountain batteries, were under the command of Brigadier-General Spragge. The Line of communications was under General Sir Power Palmer: The Peshawar Column under Brigadier-General Hammond: The Kurram Column under Colonel Hill: and the Reserve Brigade under Brigadier-General MacGregor.

The base of operations was Kohat, and the general idea was to advance by one line *via* Hangu and Shinauri: cross the Samana by the Chagru Kotal: and penetrate into Tirah by the Sanpagha and Arhanga Passes. That goal attained, Sir William Lockhart informed the tribes, that he would announce to them the further pleasure of Government, and the terms on which their submission would be accepted. But at the same time, he added, he would visit and explore every part of their country, and it would depend upon themselves whether he came as a friend or an enemy.

How completely and thoroughly this programme was carried out, you will be able to judge when you have heard me to the end.

By the middle of October, the Main Column was concentrated at Shinauri, and everything was ready for an advance. The enemy, on their side, had been preparing to oppose us, and as a first measure, had occupied the heights on the Samana, about Dargai. This led at once to severe fighting, as our very first march, from Shinauri to Khorappa, or more correctly to Khangarbur, could not be attempted while Dargai was held by them, because that position completely commanded the road to be traversed from the Chagru Kotal onwards.

Dargai, therefore, was attacked on the 18th October, by the 2nd Division, acting under Sir Power Palmer, as General Yeatman-Biggs was ill. One brigade, Westmacott's, attacked in front, starting from the Chagru Kotal: the other, Kempster's, making a long circuitous march, threatened the enemy's right flank and rear: while two Mountain Batteries, No. 5 and No. 9, co-operated by shelling the position from the Kotal. The effect of these dispositions was that by twelve noon the place was captured with comparatively small loss, fifteen or twenty killed and wounded altogether. But the sound of the firing attracted large re-inforcements to the enemy, which came swarming up in great strength from the Khanki valley, and counter-attacked with great energy between four and five in the afternoon when the Rearguard of the Division was commencing its return march to Shinauri. Some very severe fighting ensued, which was prolonged well into darkness, but the troops behaved with great steadiness and gallantry, and were handled with skill, and the withdrawal was effected in good order, with a loss, however, of one officer killed, Major Jennings-Bramly, Gordon Highlanders, one officer severely wounded, and some 20 to 25 rank and file killed and wounded.

The enemy of course remained in possession of the heights, and it must be admitted that it seemed as if the day's work had been in vain, and that lives had been lost without any useful purpose being served. Certainly, no point in the campaign has been so adversely criticised as this abandonment of the Dargai heights on the 18th October. But there are two sides to every question of this kind, and I think it only fair to submit for your consideration one view of this matter, which possibly may not have occurred to everyone here. It is this: that while it was a comparatively simple matter to hold Dargai when once we were ourselves masters of the Khanki valley, it was both difficult and hazardous to retain that position while the enemy held the line of the Khanki river. The water-supply of Dargai was in a valley to the west, three miles away. The road to it was commanded throughout its length by heights easily accessible from the Khanki valley, but extremely difficult of approach from the direction of Shinauri or Dargai. While the enemy, therefore, were in strength in the Khanki valley, if Dargai had been retained, these heights too must have been strongly held by us. It is certain, however, that these detachments would all have been fiercely attacked, and it is evident that it would have been very difficult to keep them supplied with food, water, and ammunition; while, in supporting them when attacked, attention and strength would have been diverted from more important issues, and vexatious delays might easily have occurred. Doubtless these were among the considerations which weighed with Sir William Lockhart and his staff, and keeping in mind their significance, and remembering that no advance was contemplated until the 20th, it will be conceded perhaps that the retention of Dargai, *prior to the occupation by us of the Khanki valley*, was not such a simple matter as some would have us believe.

We now may pass on to the 20th October, when the advance of the force had to be commenced in earnest. As soon as the head of the 2nd Division reached the Chagru Kotal, it was fired on from Dargai, and arrangements were at once made by General Yeatman-Biggs to storm that stronghold for the second time. On this occasion no turning movement, or flank attack was attempted. It was captured by direct assault from the Kotal, but only after very severe loss had been sustained, the casualties altogether numbering close on 200, and including many officers. The dogged bravery, and brilliant dash, displayed by our men, British and Native, on this memorable occasion, are a matter of history now, and I need not dwell on them here. Directly the heights were won, our

troops poured down the Chagru defile into the Khanki valley, and by the evening of the following day, the leading brigades were established at Khangarbur. But so terrible were the difficulties of the road from Shinauri—it was a mere stony narrow goat-track, and for several miles just the boulder-strewn bed of a torrent—that it was not until the 27th that the two Divisions were fully concentrated, and supplies, etc., collected in sufficient quantity to justify a further advance.

Dargai was of course held by us now, and occupied permanently while the operations continued.

On the 28th October, we marched to Gundaki, about 3½ miles only. This brought us to the foot of the Sanpagha Pass, and the same day Sir William Lockhart himself reconnoitred the approaches to it, and decided on his plan of attack. We had heard a good deal about this famous Pass, and about the preparations the Afridis were making to defend it, and it was generally believed that there would be a sharp struggle on the morrow before we should gain possession of it. But as a matter of fact, very little opposition was offered. The attack was launched at daylight on the 29th, and owing partly no doubt to the admirable dispositions made, and to the steady and resolute manner in which they were carried out, but principally because the result of the desperate assaults at Dargai had convinced the Afridis that it was fruitless to oppose us in a stand-up fight, they very early in the day abandoned their positions, and by eleven in the morning the Pass was in our possession. Our losses on this day were one officer and four men killed, and one officer and twenty-five men wounded.

The same evening we encamped in the Mastura valley, at an elevation of about 6,000 feet above the sea. The country here was a great contrast to the Khanki valley—broad, fertile, highly cultivated, thickly studded with well-built houses, fairly wooded with walnuts, apricot, and cherry-trees, well watered, and evidently inhabited by an industrious and well-to-do people—Orakzais, not Afridis. I think it may be doubted if these Orakzais ever really had their hearts in the quarrel. They were led on, and forced into it more or less, by their powerful and warlike neighbours, the Afridis, and when they saw us in their midst, and their comfortable homesteads, and smiling valley, threatened with fire and sword, they repented them of their folly, and tendered their submission, and paid up their fines, as soon as we gave them the opportunity. This was a few days later, on the 12th November, when we had crossed the Arhanga Pass, and established ourselves in Afridi Tirah.

But I am going a little too fast. The Arhanga Pass was attacked, and captured on the 31st October, the opposition here being even more feeble than at the attack on the Sanpagha. Our casualties were practically *nil*. One man, I think, was killed, and two or three wounded. That was all. I should mention perhaps that both in this attack, and that on the Sanpagha, the six mountain batteries with the force were massed, and their fire concentrated : and there is no doubt this bombardment of their defences demoralised the enemy, and contributed powerfully to the result. The 2.5" gun with which these batteries are armed, is without question, a most accurate and deadly weapon. There are artillery officers here this afternoon who no doubt will have something interesting to say about it, and about the method of its employment in this campaign, but I may bear testimony to the fact that these mountain batteries throughout the expedition, were handled with extraordinary judgment and skill, and I can assure you that the precision of their fire was at once a constant source of admiration to ourselves, and of terror to our enemies.

Well, we were now in Tirah itself, in a locality called Maidan, and here we stayed for rather more than a full month, and a very trying time it was. You must endeavour to realise that the force was now planted in a huge intrenched camp in the heart of Afridi-land, surrounded on all sides by rugged mountains, winding nullahs, and dangerous defiles, and by an intensely hostile population, well-armed, fearless, fanatical, and alert, and that as the country itself produced little except fodder for the transport animals, we depended for our supplies upon the base at Shinauri, 35 miles away, to reach which *three* mountain ranges had to be crossed, and the road to which was liable to attack, and had to be strongly guarded, throughout its length. The duties which during this period devolved upon the troops were, as you may believe, of a most arduous and trying nature. They included escorts to the foraging parties which daily went far a-field to collect fodder, and such supplies as might be found : frequent reconnoitring and punitive expeditions, to explore unmapped country, or to destroy the houses and towers and defences from which we were constantly fired at ; and very heavy and harassing picquet duties by night. All this time, our attitude was necessarily rather a defensive, take-care-of-yourself, attitude, rather than an offensive one, and the desultory skirmishing warfare in which we were almost hourly engaged, while a severe trial to our own men, was exactly suited to the temper and tactics of our enemy, whose idea of happiness is to stalk escorts, raid convoys, ' snipe ' camps

by night, and cut up followers and stragglers whenever the chance offers. Unceasing vigilance was therefore necessary on our part to prevent surprises and accidents, which in spite of every precaution did occur sometimes, and you will understand that though no pitched battles were fought during our month in Maidan, still the position involved watchfulness, hard work, and exposure, in no ordinary degree, and called for a display of soldierly qualities of the highest type on the part of their troops.

In his preliminary announcement to the Afridis, issued before starting from Kohat, Sir William Lockhart informed them, as I have already told you, that he intended to visit every part of their country, whether they liked it or not, in order to convince them that the long arm of British justice could reach them, and punish them, if necessary, even in their remotest glens. In pursuance of this announcement, occasion was taken while we were in Maidan to organise expeditions to explore the Saran Sar mountain, and the road leading over it into the Bara valley : the Waran valley in which was the home of the notorious Mullah, Sayid Akbar, the mainspring of the rebellion : the gloomy and dangerous gorge leading to Dwatoi and the Kuki Khel country : and the Chamkani-Massozai-Mamozai districts, and of course the wild passes, the Lozakka, the Durbi Khel, and the Chingakh, by which they were approached. On all these outings, there was very severe fighting ; and in two instances, the 9th November and the 16th November, the losses on our side were disastrous. I have written at length on these incidents elsewhere, and I do not propose to touch on them this evening. If I did, it would only be to show that though mistakes have been made sometimes (and in what campaign or expedition has there never been any mistake made ?) yet the British soldier and his Native comrade, have never been found wanting in the hour of trial. They have followed their officers bravely whenever called on, and have stuck to each other, and to their wounded comrades, always with devotion : and generally speaking the tighter the fix they have been in, the more conspicuous have been those qualities of pluck, and fortitude, and resolution, which have made the arms of England famous, and her name respected, all the world over.

By the first week in December, it was time to make a move. The cold already was intense, hard frosts every night, bad weather threatening, and the winter evidently approaching in earnest. The snowfall in Tirah is generally very heavy ; and the Afridis themselves leave these highlands in

these months, and lead a gypsy life in caves, and temporary shelters, in warmer climes, until the approach of spring. It was ordered therefore that the 2nd Division, with Army Headquarters, should now march down the Bara valley, and join the Peshawar Column about Barkai: and that the 1st Division, under Major-General Symons, should sweep down the Mastura valley, and over the Sapri Pass, *viâ* Bara, to Jamrud. This would concentrate the Force in positions whence on the one hand, they would dominate the Afridis in their winter settlements, and on the other, be ready to re-occupy the Khyber, and to penetrate into the Bazar valley.

This programme was fully carried out. All heavy baggage and surplus stores were sent away in good time to Shinauri, and the line of communication with that place, and Kohat, was abandoned: Tirah itself was evacuated on the 7th—9th December: on which latter date the 2nd Division was assembled at Dwatoi, and the 1st Division was fairly started on its march down the Mastura valley. I may say here that, after making on its way a brilliant raid with one of its Brigades, Brigadier-General Hart's, into the Waran valley, it crossed the difficult Sapri Pass without fighting on the 12th December, and reached Bara safely on the 15th, whence, after two or three days' rest, it went on to Jamrud on the 19th, to which place the Peshawar Column (from Barkai) under General Hammond, had preceded it.

In the meantime, the 2nd Division, with which was Sir William Lockhart himself, had been having a very trying time in the Bara valley. From Dwatoi to Barkai was only four marches—Sandana, 8 miles: Sher Khel, 10 miles: Narkandai, 8: and Barkai, 8. It sounded very little—only 34 miles altogether. What more simple and easy than to reel them off? But I think most of us understood that it meant four days of the sternest work, and stiffest trial, that the force had encountered yet. For whatever we might think about it, or call it, the Afridis would, and did, consider it a movement in retreat. Their *Mullahs* would tell them that baffled and defeated, we were flying from their country, and would urge them to follow after, and to strike hard for vengeance sake and for their faith.

And they did all this, and it must be confessed played their own game with great skill and determination. The elements, too, were on their side. The fine open weather, and bright sunshine, which we had enjoyed up to this time, deserted us as soon as we started on this eventful march, and the rain and snow and sleet which fell heavily on the 9th and 10th made a cruel difference to the wretched transport animals,

and shivering drivers and Kahars, who like every one else for that matter, had to lie out in the wet without tents or shelter.

The Bara valley is famous for its rice crops. Our line of march was along the river-bed, and the rushing icy cold water, knee-deep, had to be forded ten or a dozen times in every mile. When you were not in the water, you were either stumbling over pebbles and boulders on the banks, or ploughing your way across swamped rice-fields laid out in terraces, the drop from one to the other of which was 2 or 3 feet and sometimes more, and which were cut up in every direction by deep water-channels which often you did not see till you blundered into one up to your waist! Imagine a mob of some 12,000 animals surging down the valley over ground like this, urged on by shouting and terrified drivers, a keen and relentless enemy hot-foot in pursuit, bullets whistling over head, villages blazing on either bank, and the rattle of musketry and the roar of guns resounding on every side. Imagine all this if you can, and you will get some faint idea of the stern reality, and will believe that under such conditions, only pluck and hardihood on the part of the men, coupled with coolness and judgment on the part of the officers, stiffened by endurance and devotion to duty by all, enabled our troops to face such situations not once, but day after day, with resolution, and to emerge from them with success.

And that is what the 2nd Division did. It may be confidently asserted that not since the great mutiny has there been such severe and constant fighting as fell to its lot in this expedition. All indeed had their share of hardships of no ordinary kind, and of frequent exposure, privations, and risks, which were cheerfully endured, daily and nightly, while the strain on all ranks was throughout severe and incessant. But the brunt of the fighting fell on the 2nd Division, and in killed and wounded its losses alone from the time it started up to arrival at Barkai, were little short of 1,000 men. Here, on the 14th December it linked up with General Hammond's Column, and that night, encamped safely inside his brigade, the tired men enjoyed at last the sweets of an undisturbed rest.

If the Afridis were under the impression that with the evacuation of Tirah we had done with them, they were now to be undeceived. As soon as the 2nd Division was safely established at Barkai, General Hammond's Peshawar Column, as it was called, moved to Jamrud, where it was joined, as I have already said, on the 19th by the 1st Division under General Symons. These troops now, under the personal direction of Sir William Lockhart, opened up the Khyber Pass,

and explored the Bazar valley as far as China, the defences of which place were levelled to the ground. Landi Kotal was occupied without opposition by General Hammond, and all the Zakka Khel villages along the line of the Khyber were destroyed. Still this particular section of the Afridis held aloof, and refused to come in, and despite the pressure put upon them, and the losses they had endured, they maintained their defiant attitude. On two separate occasions, indeed, they assumed an offensive rôle, and in beating off their attacks our losses were severe. Once on the 30th December, when the picquets of the Oxford Light Infantry were seriously attacked in the Khyber Pass: and again on the 27th January, on the Barkai side, when the Yorkshire Light Infantry lost 27 killed and 32 wounded (three officers amongst the former) and the 36th Sikhs their gallant and distinguished Colonel Haughton, and their Adjutant, Lieutenant Turing—a truly disastrous day.

However, this was the last of the fighting. Tired out by the strict blockade that was maintained, and threatened with a fresh invasion in the spring, they gave in at last, and by the end of March 1898, their submission was complete, and all fines and rifles had been paid in full. It was a matter for great thankfulness and congratulation that a spring campaign was thus avoided, and no more convincing evidence of Sir William Lockhart's personal share and dominant influence in achieving a peaceful end to the tedious negotiations could be cited, than the extraordinary fact that when at last released from duty on the 5th April, and about to start from Peshawar for England to enjoy a much-needed change, and some well earned repose, crowds of his late enemies flocked into cantonments, wanted to hoist him on their shoulders, and drag his carriage to the station, and finally sent him off with loud cheers, protesting he was their best friend, and that in future they would always fight on the side of the English!

PART II.

I pass now to the lessons of the campaign. I mean of course, the *tactical* lessons, for with the larger questions of administration and policy we are not concerned this afternoon: and the *strategy* of the campaign I do not propose to touch on, as it opens up fields for discussion and speculation too wide to be introduced at the tail end of a lecture. But I may point out for the consideration of military students, that in the same way as at

the Staff College officers are invited to criticise and comment on, the strategy of European campaigns, and to suggest alternative schemes which might have been adopted, noting their advantages, and disadvantages, etc., so I believe it would be excellent practice, particularly for senior officers, to think out, and discuss among themselves, the strategy of this campaign, and to consider and formulate, for their own instruction, other plans than the one followed, which no doubt a study of the conditions, and of the maps, will suggest to a thoughtful man. Exercises of this kind are full of benefit for those who approach them in a proper spirit.

On the question of the abandonment of the Dargai heights on the 18th October, I have already said all that is necessary. But there is one other point in connection with the fighting at Dargai to which I may direct attention. It is this: that a purely frontal attack against a well-armed enemy, strongly posted, must always be attended with dreadful loss of life. I am referring now to the operations of the 20th which resulted in 199 casualties. You will understand that I am not raising the question as to whether in this instance anything else *could* have been done, or *should* have been done, but I simply refer to this action to accentuate the fact that a direct attack, unsupported by any demonstration against a flank, must always be so costly in life that it should never be resorted to if there is any way out of it.

I think until we had gained some experience on this expedition, there were very few of us who appreciated the full significance of the fact that the Tribes on our Frontier are now fairly well armed with Martini-Henry rifles, and are wonderfully expert in the use of them. The Afridis certainly possess them in large numbers, and their stock of ammunition is apparently limitless. This fact makes warfare across the border a very different matter now, from what it was in the days when their weapons were principally jezails, with perhaps a few Sniders and muzzle-loading Enfields thrown in. In those times the flanks of a marching column were adequately protected if detachments on the right and left were pushed out for say half a mile, for the longest range of the best of those weapons was barely 1,000 yards.

But the Martini will kill at a range of a mile, and the Lee-Metford at 2 miles. Consequently, flanking detachments must be sent out almost a mile (it depends of course upon the ground) on either hand before a march can be made in safety. It must be remembered there are no roads across the border, except such as we make ourselves: and mules

and ponies laden with baggage and supplies cannot go climbing about roadless hills. The only alternative is to keep in the valleys, and follow the river-beds. Thus every march is made practically through a defile from start to finish, for the valley is invariably commanded throughout its length by the heights on either side, and therefore these heights must be crowned by flanking detachments before the main body and the baggage trains and hospitals, etc., can advance. It is easy to understand what delays, what toils, and what risks, are involved by this procedure, during even a short march of only 7 or 8 miles.

Of course, everyone knows that in fighting these Frontier Tribes, whether Afridis or others, an *advance* is generally all plain sailing. They are no simpletons these tribesmen. They know perfectly well that if we mean business they cannot prevent us from coming on, and generally speaking, they don't try to. Dargai was a notable exception. But, as a general rule, as we advance they retire. Their game is not to stand up to us in a regular fight, but to interest us by a lively skirmish, to worry our flanks, and threaten our transport, and hang on to our Rearguards, in the hope of picking up some abandoned baggage, and of securing perchance a much prized rifle or two.

But we must beware against being lulled into any false sense of superiority or security by the small resistance offered to an advance: or by the ease and trifling loss, with which immensely strong positions are won, such as the Saran Sar heights, for example, on the 9th November. The Tribesmen's tactics are not dictated by timidity, but by commonsense. They know that presently we shall retire. We have to get back to camp: we want our dinners: and so the object of the outing being accomplished, whatever it may be, sometimes a survey, sometimes the collection of forage, or the destruction perhaps of a village or two, the order is given to withdraw.

That instant they assume the offensive. Where only a handful of men were seen before they now start up in dozens. They know every inch of the ground: they are lithe and active as goats; they are unencumbered by uniforms, boots, water-bottles, and havresacks: and they are first-rate shots. Their skill in skirmishing is quite extraordinary, and their activity marvellous. You will understand therefore that to retire with success in the presence of such an enemy requires coolness and judgment. If there is any accident, any wavering, or any mistake made, it is instantly taken advantage of, and where all

was going well the minute before disaster may ensue like a flash.

This brings us to the question : How should a retirement be effected ? The answer is : In successive lines, by companies, or half companies, according to their strength and the ground, each extended and covering the withdrawal of the other. To be more precise : The company nearest the enemy must remain lying down, under cover as much as possible, and firing steadily, until its supports in rear are well posted and ready. Then, after a final volley, the men turn about, without showing themselves if they can help it, and *run* back as fast as they can go, pass through the supporting companies, and finally themselves take up a fresh position in rear ready in like manner to support the withdrawal of those now in front of them. Sometimes, in Tirah, instead of the whole company going back all together, a handful of *selected* men were left to the last, and these when the time came just raced back to the fresh position in rear, and always got away safely before the enemy realised that they had gone.

The Drill-book, you will remember, lays down that "retirements should usually be performed in *quick* time," and says that "in moving from cover to cover *an upright position* must be maintained." But the Drill-book was not written for Frontier fighting, yet it is our official guide out here and regiments that have never practised any but Drill-book methods must be seriously handicapped when they suddenly find themselves across the border engaged with an enemy like an Afridi. I think if the United Service Institution of India were to offer its medal one year for the best essay on savage warfare, with special reference to the Frontiers of India, we should get some valuable information, and if the cream of these essays were officially published as a sort of Appendix to Infantry Drill, the result, I am sure, would be a most instructive and useful compilation which would be appreciated by every soldier in the service, and of special value to British regiments on their first arrival in this country.

So much for retirements. A few words now about an advance, or rather about a march, down the Bara valley, for example, in contradistinction to a short advance of a few miles only, to be followed immediately by a retirement, as, for instance, when a forage party goes out for the day. In the former case, the enemy must be cleared off the heights right and left, which command the line of march, and these heights must be held by the troops that have captured them until the last of the Rearguard is abreast of them. Then these come

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down and join the Rearguard. In withdrawing, they must remember that they run a great risk, and they must act, whether there is only one company or more, on the principles already indicated for retirements. The advancing Force thus starts with a very strong Advanced guard, but arrives at the new camp generally with a small Advanced guard, and a very strong Rearguard.

I have said that retirements in savage warfare must often be conducted at the run. This of course is to avoid the danger of the ridge or position just abandoned, being seized and occupied by the enemy before the retiring troops are out of fire from it. That is the whole danger. If they are overtaken by fire from the vantage ground they have left, some of them will certainly be shot down before cover is reached, and then the trouble begins. A wounded man cannot be left to the tender mercies of an Afridi. There are no doolies in the fighting line, and you can't wait until a dooly arrives. The wounded must be carried by their own comrades. There is no help for it. That means at least four men put out of action for one man wounded. It means also a target for the enemy which they can hardly miss. The situation in a few minutes may become a most serious one. It requires no further explanation.

In an attack, however, movements cannot be too deliberate. Officers are very apt to lead too quickly. They should adapt their pace to the ground, and to the condition of their men, the great object being to maintain a steady advance without getting scattered, or unduly separated from supports. All Drill-book attack formations are of course entirely inapplicable to mountain warfare. In Tirah, an extended line of skirmishers led the way, an officer always with it, and each company as a rule followed its own skirmishing section pretty closely, itself not extended, but with files well opened out. Other companies followed closely in support, and generally more or less in echelon. Depth in attack was not considered essential as in civilised warfare, but the importance of enveloping attacks cannot be over-estimated. Directly the tribesmen thought there was the slightest danger to their flank, or line of retreat, they were off.

I must now say a word about outposts and the security of camps. Here again Drill-book rules were of little avail. For example, it may be taken as a maxim in hill warfare that picquets should *never* fall back. They entrench themselves wherever they are posted, and quite understood always, in Tirah, at all events, that their duty was to fight where they

stood, and neither to retire nor to expect support. They were repeatedly fiercely attacked, but there was no instance of a picquet being overpowered. Their strength depended upon circumstances, 20 men was about the minimum, and 50 or 60 the maximum. Similarly, patrols were out of the question. They were never employed. The ground was totally unsuitable for them. They would either have fallen over some precipice and broken their necks, or they would have been ambuscaded and cut up by the enemy. The picquets were of course posted all round the camp (which itself was strongly entrenched) far enough off—1,000 to 1,500 yards—to prevent the camp from being sniped.

I have more than once in the course of this narrative referred to the good work done by the mountain artillery. I don't know what we should have done without the guns. The way in which they were handled, the accuracy of their fire, and the effect of it, were the admiration daily of us all. At Dargai and at the attacks on the Sanpagha and Arhanga Passes, the batteries were massed, and their fire concentrated, with marked effect. But these were special occasions, and speaking generally, and remembering that mountain battery gunners claim that they can take their guns wherever an infantry soldier can go, provided he does not climb with hands and knees, I would submit that greater effect can usually be obtained by dispersion of the guns, and by splitting up even a single battery to work by sections. By this means, good positions are more readily obtained, a smaller mark is afforded to the enemy, and the guns can be more easily and more rapidly pushed forward or withdrawn under cover of each other's fire. A converging fire too can often be obtained by dispersion, which is more effective than the direct fire of a larger number of guns assembled in one spot. In conclusion, I cannot refrain from echoing the cry of an experienced artillery officer who in writing to me says: "I should like to know why everyone is full of the praises of this gun (the 2·5" gun) during an expedition and why, as soon as it is over, they set to work to abuse it in the Papers and elsewhere?"

Finally, one word about the Gurkha scouts. As I myself am from a Gurkha Regiment, I may be suspected of partiality if I talk much about them, so I will only say this: It seems to be generally admitted that in many special ways they rendered invaluable service. They were a body of men specially trained to work over bad ground, and specially selected for their wiry physique, fleetness of foot, and skill as marksmen. Their careful preparation in peace time had made them hardy,

active, intelligent, self-reliant, and resolute, and throughout the expedition under the bold leading of their officers, they were conspicuous by their dash and daring both in attack and defence.

Now, it seems to me that the special duties they were employed on were precisely those which in Peninsular days were undertaken by the *Light Companies* which were then kept up in every regiment, and to which it was an honourable distinction to be posted. Why then should not these Light Companies be revived, and the scouts abolished? Each battalion would then have its own scouts. Of course, in these days, one company is supposed to be as good as another, if not better, but the experience gained with these scouts in this campaign shows that specially selected men can be trained to a very superior pitch of excellence: and the spirit of emulation is now so much abroad, and is such a powerful incentive in the struggle for distinction, that it seems worth considering whether immense good might not be done, and the fighting power of every battalion substantially increased, by reviving in each the old Light Company, posting to it only picked men and officers, training them highly and specially, and in return, granting them some small distinctions and privileges in time of peace, and posts of honour and danger in time of war.

I think many practical soldiers would like to see the idea taken up.

Much more might be said on the lessons of the campaign, but I am afraid I have already exceeded my allotted time and I must stop.

The Chairman, Major-General Sir Edwin Collen, having invited a discussion, *Mr. S. S. Thorburn said:—*

It is a great privilege to be allowed to address you as I am a new comer in Simla. My excuse for taking up your time is that as a very old Frontier Officer I know something of the ways and moods of Pathans.

Like others I have watched with a sort of foreboding interest the progressive developments in that policy of expansion which culminated in the conflagrations along our North-West Frontier of last June, July and August. The flimsy and inflammable jerry buildings we had been running up then caught fire and were nearly burnt to the ground. In extinguishing the flames the fire brigade lost some 2,000 men, and necessitous India had to pay a bill of 2½ millions sterling.

Well, life is cheap, except for those who love, but money is always dear—particularly good money in India.

In the lecture there was a pronounced tone of reserve. Indeed it appeared to me as remarkable for facts and criticisms withheld as imparted. Colonel Hutchinson has told us only a very few of the many lessons of Tirah.

For instance, he has said nothing upon the lessons of policy, strategy or organization, which his story teaches; nothing about the long starvation of the Civil Administrations of India, caused by the constant outpouring of treasure on these never-ending frontier wars; nothing about the wholesale impressment of man and beast throughout the Punjab, which each of these wars forces on Government. Impressment is of course only excusable from necessity, but as practised in the Punjab, without discrimination, without system and without organization, it entails upon the unfortunate rural population ten-fold more suffering than would be necessary with system and with organization. In proof of what I say I may tell you that the Deputy Commissioners of the Punjab last hot weather impressed about 100,000 animals and 25,000 owners; of these numbers not more than one in five was sent to the front. These subjects are outside the scope of the lecture, and consequently outside discussion. I confine my remarks to the opening part of Colonel Hutchinson's address, in which he considered the causes of the recent risings.

In disposing of his canvas Colonel Hutchinson sketched in, with a light and almost uncertain brush, what those causes were. He said in effect that the execution of the Durand Agreement of 1893 drove home into the minds of the tribesmen the conviction that we intended to destroy their independence. On this ground he added "the Pathans may have based their revolt." These were I think his *ipsissima verba* "may have based their revolt." He might well have been more positive. The term "revolt" is a misnomer. A revolt presupposes conquest and subjection. But the tribes along our North-West Frontier have never been conquered and never been subjected. They are nearly as free to-day as they were in the time of Alexander the Great, 2,300 years ago.

Now what was it we did to these tribes? We demarcated a vast *hinterland* to our frontier districts and included inside what we were pleased to call our political frontier the whole of the territories of these frontier tribes—about 10,000 to 12,000 square miles in all. The tribes interpreted this action as a conclusive proof that we intended ultimately to annex their countries. Now suppose after the battle of the Standard, when Scotland lay prostrate at the feet of the English King, he had run a line of pillars from sea to sea, east and west of Perth, and proclaimed that all south of that line was in future to be inside the political border of England. I think Highlanders and Lowlanders would have pulled down these pillars and fought England to the death. That is what the Pathan Highlanders would have liked to have done, only they had to wait for an opportunity.

At the time of the risings many Punjabi gentlemen—all men of light leading and political observation—Hindus, Sikhs and Mahomedans—expressed the opinion that the root-cause of the troubles was the forward policy of the Government of India. As one venerable

Sikh friend of mine condensed the case into a single word, he said the whole storm was due to the Sarkar's *mohalāgha*, that is, high-handedness or grasping policy.

Now passing to a more immediate cause of the recent troubles, Colonel Hutchinson states that it was fanaticism, and he defined that term as meaning religious exaltation or excitement. I think that definition is not severe enough. It would cover the blameless fanaticism of the early Christians, who suffered themselves to be torn to pieces by wild beasts, or crucified, singing hymns the while. You can read all about it in that powerful novel "*Quo Vadis*." I think a good definition of fanaticism and fanatical outbreak would be a sentiment of religious intolerance excited into reckless action.

That is exactly what the frontier Mullahs succeeded in doing with the independent tribesmen, but without the root-cause, the sense of wrong at our attempts, as they conceived, to deprive them of their freedom the Mullahs would have failed to excite their fanaticism into hostility. In the Soudan the Mahdi would have preached and posed as a Saviour and Deliverer in vain, but that the Soudanese were exasperated by the oppression of the "Turks," as they called the Egyptian Pashas and Fellaheen soldiery of Egypt. So upon our frontier, without the feeling that we were going to destroy their independence, the Mullahs would have had no success. These Mullahs had several concurring circumstances in their favour; pamphlets and exhortations by the Amir, the noising abroad of the victories of the Head of the Moslem world, the *Sultan-i-Rūm* over a Christian power. In addition food was dear in the hills. It is a remarkable fact that in the year immediately preceding the outbreak of the last Afghan war, that is, in 1877, there was famine in the Punjab, so in the period immediately preceding this frontier rising there was also famine in the Punjab. These facts may be coincidences, but I think there is a connection between cause and effect in them. It would be worth while to look back and see if the dates of our former expeditions show that they mostly occurred when food was cheap or food was dear? We all know that hungry men are quarrelsome and ready to fight, whereas full men are restful and love ease.

I now come to the immediate cause of the rising *en masse* of the Afridis against us. This subject has not been touched upon by the lecturer. A bald recital of facts will suffice.

On the 7th August last, the Mohmands raided Shabkadar and were soon after defeated and dispersed. After that troops were hurried to different outposts in the Peshawar District. Reinforcements were poured into the valley, and preparations made for a considerable campaign. Whilst this was going on in the plains, up in the hills the Afridis and Orakzais were holding Jirgahs, and the Mullahs were preaching that now was the appointed time for wiping out every sign and symbol of the presence of the hated *Feringhee* in their midst. Some days passed, then Captain Barton, Commandant of the Khyber Rifles, was recalled from Landi Kotal to Peshawar.

A few more-suspenseful days went by, and then on the 23rd of August swarms of Afridis surrounded and beset the various posts in the Pass, and after some hours' fighting captured Fort Maude, Ali Masjid and Landi Kotal. The 23rd of August was a day of pain

and humiliation for every Englishman in India. We had 12,000 troops at the mouth of the pass or within easy reach of Ali Masjid marking time as it were, or held in leash, and we allowed these forts to fall one after the other.

Public opinion holds that the recall of Captain Barton was a blunder. He was, in fact, ordered to desert his men. I think there is no case in history of a Commander being so ordered. If Landi Kotal was too hot for Captain Barton, it was too hot for his men. Public opinion also holds that we should have reinforced the garrisons in the Pass, and so prevented the rising of the Afridis. Whether or not it was possible to throw garrisons into the posts of the Pass is not for me, a civilian, to say.

But it is impossible to avoid contrasting the action of Lord Roberts in September 1879 with the inaction of the Peshawar authorities in 1897. Lord Roberts, with 6,000 men and a scanty transport, invaded hostile Afghanistan, fought the victorious battle of Char-asia and captured Kabul. We with 12,000 men at the mouth of the Pass let our own forts fall into the hands of the Afridi rabble, and so forced the Afridis, as it were, to rise *en masse* against us. During the ten critical days in August I used to meet General Nicholson and Colonel Warburton almost every afternoon and discussed the development of the drama enacting in Peshawar with them. In reply to our questions Colonel Warburton always said that his Khyberis would be true to their salt and fight for us; but latterly, when he found that they were to be deserted, he said they would be overwhelmed, and so they were. Instead of fraternising with their co-religionists and fellow clansmen, with some considerable exceptions, leaderless though they were, they fought for us bravely.

Some may object that although Swatis, Momunds, perhaps Mahmunds, Orakzais, Maisuds, Dawaris and Manna-Khels had a cause of quarrel against us, the Afridis had none. Properly speaking this objection is correct. But here comes in the appositiveness of the Horatian line or maxim—" *Tua res agitur paries cum proximus ardet,*" that is, when your next-door neighbour's house is on fire the sparks are falling on yours. It is your concern then. Well, the houses of the neighbours of the Afridis to the north, east and south of them were all in a blaze, and the sparks were falling amongst the houses of the Afridis. As we failed to help them to extinguish these sparks, their houses were also burnt down.

I have failed in conveying to you my reading of the broad teaching of the story of Tirah and the frontier risings generally, unless you have understood that that teaching is, that persistence in the policy of expansion upon our North-West Frontier is intolerable to the independent tribes occupying it, and impracticable for necessitous India—impracticable because of its enormous costliness and its hopelessness of finality.

The Hon'ble Sir James Westland said—

I hardly realized the fact that I am in Simla when I heard the last address delivered before this meeting. I thought I was attending a meeting of the National Congress, when I heard from the back of the Hall loud applause to greet the statement that the 23rd of August

was a day of pain and humiliation for every Englishman in the country. I absolutely deny it, and one thing that struck me as most true was when the last speaker said that he was only a civilian and could not pretend to criticize these doings. In the seat of war you have to leave the question of retreat and advance to those who are conducting military operations. It is not a day of pain and humiliation when you undertake preparations of advance which begin with the recall of an officer who is 20 miles away from any possible support. It is a mistake to represent the manner in which the Khyber Pass was held before August as one for which the responsibility lay with the British Government. The Khyber Rifles were not soldiers of the British Army and did not represent English forces. They were a tribal force entertained and paid on the part of the Afridis, and not on our part, and they represented Afridi authority in the pass as recognized by treaty with us, and not English authority. This seems to me to make a great difference when you are judging as to the action taken about the 23rd of August. It was known that the Afridis and Orakzais were in a restless condition. It was known that they intended no longer to hold those positions in the Khyber which they were bound by treaty to hold, and which up till 23rd August were occupied on their account by the Khyber Rifles. We had an officer, Captain Barton, who had been appointed to look after the organization of these tribal forces, and even assuming that these forces would oppose themselves and would be able to successfully oppose themselves to the body of these tribesmen, I cannot see that there was any pain and humiliation in having to recall an officer who was exposed to such risks, before deciding what steps could be taken to meet the tribe. And that was all that was done on the 23rd of August.

I have tried to learn exactly what the views of the last speaker are as to the origin of these disturbances. He tells us the Afridis had no cause of quarrel. Then how is it our fault that they poured down the pass in thousands and attacked the posts? If there was no cause of offence, then what is the use of talking of the high-handedness of Government as the cause of the outbreak? If the Afridis attacked us because of famine prices and because they were hungry men, the responsibility for famine did not rest with the Government of India, and the attack cannot be ascribed to high-handed policy on our part.

I confess that I don't see much reason for wasting time over examining the causes of these frontier wars. The cause lies in the simple fact that human beings are by nature fighting animals. Thousands of years before we came to this country petty chieftains and Rajas spent their lives in fighting with each other. They conquered each other's dominions and they were conquered in turn by others.

What is our own history? We began 150 years ago with frontiers drawn round the immediate neighbourhood of the Presidency towns. Was it by continual peace on our borders that our frontier has extended 1,500 miles to Peshawar? We know that the extension has arisen from the fact that the races on our border have always for one reason or another been trying to fight us. We know that, not only in this country, but elsewhere, when a higher civilization comes in contact with a lower one, there is no durable peace between the two.

Well then I ask, under these circumstances, what is the use of putting down all these wars to our door? We don't want them. We do everything we can to prevent them.

Then as to the making of the Agreement with the Amir regarding the point up to which we were to exercise political influence and the demarcation that followed it. Even that measure was taken in the interests of peace. It is one thing to have to fight tribes like the Afridis on our borders; it is another to have, in the political condition of the tribes on our border, a perpetually imminent cause of quarrel with a great power like the Amir of Afghanistan, and possibly a greater power beyond. If in avoiding this greater and more permanent cause of difficulty upon our frontier we have created smaller difficulties upon our immediate frontier, I say nevertheless we have adopted a wise policy in making the settlement.

Also I don't believe that whatever policy we may adopt we have seen the end of our frontier wars. The peace may last a time, but to think that we can sheathe our swords and lie down in quietness and security is hopeless. So long as the tribes believe in our strength and are afraid to break the peace, and so long as they find it to their interest, they will keep peace, but that state of things will not last for ever. The Government of India must be prepared for occasional frontier wars as a necessity of its position in future, as it has been in the past.

One thing will now be evident: the tribes who have been fighting with us will see that we have no intention to disturb their independence. If that was their opinion before, they will now see that they have thrown away many lives, and undergone much privation to no useful purpose, and they have had a lesson that will not soon be forgotten. Colonel Hutchinson said, and said truly, that the Amir held faithfully to his engagements with us. I think this is giving the Amir only scant justice. The Amir was faithful through trials and temptations that might have overcome a stronger man. There is no doubt the tribes were stimulated in their resistance by the Mullahs who stated that the Amir was their friend to whom they might look for aid. It is the Amir's policy to pose as the King of Islam, and it was natural for the tribes to think they could look to the Amir for sympathy when at war with Christians. But the Amir told them at the beginning that they were fools for making war against us. He said it was the first duty of Mahomedans to hold by their engagements, and told the Afridis that, having broken their engagements, they must take the consequences. He said afterwards, when they sent representatives to him, that he would have nothing to do with them, and that their allegiance was due to the British power and that they must submit to the British power. I beg you to remember that this was done at a time when, by raising his little finger, the effect would have been that last year's war would have been still more widespread than it was. The declarations, moreover, were made to tribes who had looked to him for many years as their spiritual sovereign, and who had been given over to us by an agreement which he must in the nature of things have had some reluctance in accepting. Yet, notwithstanding these temptations, to take sides against us, he used his influence and authority to make the tribes quiet. I say that not the least valuable lesson of Tirah is that the Amir of Afghanistan thoroughly means to hold

to his engagements with us, that he has a high sense of honour and is a faithful ally of the British power.

There is another point. In some parts of the country we have been much criticism directed against the conduct of the Tirah Campaign. The criticism has too often been based on incomplete knowledge of what has been going on. We have heard a good deal this afternoon about the 23rd of August. There was a paragraph appeared in a newspaper on the evening of that day, which I copied out this afternoon as an amusing incident, but which I shall now use, in connexion with my present argument, to show the tendency to adverse criticism of Government arising from pure ignorance of fact. A well-known Calcutta newspaper published that evening (not then under its present management) contained the following paragraph :—

“From the latest telegrams it would seem highly probable that we are on the eve of witnessing a fizzle of the frontier scare. There has too evidently been exaggeration in the reported rising of the Afridis and Orakzais. These important tribes which were alleged to have joined the outbreak have made no sign, and there is nothing to show that the surmise was anything better than a deliberate invention. Besides the forces at Jamrud, Shabkadar and Kohat there are now no fewer than 6,000 troops massed at Peshawar, but it is extremely improbable that there will be any fighting. Whether the tribes would have risen in formidable numbers, had the present demonstration not been made, must remain an open question, but the anticipation of a general outbreak has been, to say the least, a little premature. There are those indeed who will insist that Government has given way to a false alarm.”

The telegrams which proved that the Government were right, and had not been guilty of deliberately inventing a frontier scare, must have reached the gentleman who was for the time acting as Editor almost before the issue was posted, and they were printed next day, but not a word of regret was expressed for what was thus shown to be a false accusation of serious wrong doing.

Well, I have necessarily been behind the scenes and I wish to say to intending critics that criticism should be founded upon a knowledge of facts. Those who wish to condemn the actions of the soldiers and to call in question the policy of government of this country should have some detailed knowledge of what has been done. The actions of the Government of India and of its high officers have been too often misrepresented in public papers. I bring no accusation against the public press generally, because there are many newspapers in this country that are as careful as they can be about the information they get. But in a war the newspaper correspondent, as the lecturer pointed out, is at great disadvantage in gathering his information. Criticism is no doubt a function and a useful function of the public press, but I think the statements you sometimes receive as facts should not altogether be accepted as a matter of gospel, when they amount to an implication that high officers like General Lockhart know nothing about the rudiments of their profession, and that the Government of India are perpetually running into all sorts of wild schemes.

His Honour the Lieutenant-Governor said—

If there was one thing I was determined upon when I entered this room, it was that I would not make a speech. But the frailty of human nature is great, and I cannot refrain from saying one word.

I was struck with the judicious tone of the lecture. It contained a great deal of information and was free from that excitement, which has been administered to us by another speaker, and which perhaps we are better without. The subject is one on which widely different opinions exist, and if we were to give the rein to political discussion, many things would be said which would be better unsaid. I think also that Sir James Westland's caution is well timed, and that those who intend to take part in this discussion should be sure of their facts. Judging however from the pause which occurred before I stood up, it does not seem as if there is much inclination to continue the discussion.

I have only to say how much we are all indebted for Colonel Hutchinson's most interesting and judicious lecture.

Colonel Hill said—

There are two points in Colonel Hutchinson's lecture that I wish to draw attention to, as I do not think they ought to be allowed to pass unchallenged at a lecture delivered under the auspices of this Institution. One point concerns Drill and the other Musketry.

First, as regards Drill; Colonel Hutchinson says: "The Drill Book was not written for Frontier Fighting—all Drill Book attack formations are of course entirely inapplicable to Mountain Warfare."

The Drill Book lays down certain principles, which we are told to apply as circumstances require, and in one place the Drill Book sketches for us an imaginary fight and describes the progress of the action.

Everyone here must be familiar with the details of the storming of the Dargai Heights, so I will take that as an instance of Mountain Warfare, and see what the Drill Book says ought to have been done as compared with what was done and done so successfully.

Omitting the early stages of the action, we find the First Line has arrived at what the Drill Book calls the "fire swept zone." We are told that this "fire swept zone" cannot be crossed by small units, but that the Second Line must be massed for this business.

We all know how, for three long hours on the 20th of last October, the finest troops in the world, with the utmost devotion and bravery, did their level best to prove the Drill Book wrong, by trying to cross the "fire swept zone" by small units at a time.

When this had quite failed, Colonel Mathias of the Gordon Highlanders brought up the Second Line, and what he did we all know, but what he ought to have done, according to the Drill Book, is as follows :—

"The Second Line is assembled several lines deep, opposite that portion of the enemy's position selected for assault, and which is to be taken cost what it may. The critical moment has now come. Orders are given for the final assault. The Second Line advances, and as it

strikes the First Line, carries the assaulting portion of it forward—the whole continuously advance and rush the position. During the delivery of the assault the men will cheer and the pipes be played.”

It has been my duty to read the reports on every Field Firing practice that has taken place in India during the last four years, and I have no hesitation in saying I have never known any instance of an assault being delivered so thoroughly in accordance with the Drill Book as was the assault on Dargai—not omitting the playing of the pipes. And yet we are told that the Drill Book is not applicable to Mountain Warfare and that Regiments which have practised only Drill Book methods must be seriously handicapped when they suddenly find themselves across the Frontier.

I don't mean to say the Drill Book cannot be improved—of course it can. I suppose everything in this world is capable of improvement. But I maintain that it is a very dangerous theory to enunciate that officers, who train their men in accordance with the official Drill Books, are seriously handicapped on service. The result would be that every General and Commanding Officer would draw up their own systems and theories, and what then? *Tot homines quot sententiæ*! The strictest uniformity of system in training is, more necessary in our Army than in any other Army. In France, Germany or Russia the units of Brigades and Divisions that are trained together in time of peace, go on service together—not only the troops but the Generals and their staff.

One of our mobilized Brigades may consist of Regiments from Bangalore, Mhow and Peshawar, under the General from Belgaum, with the staff from *anywhere* (except perhaps Simla).

If recent experiences have shown that the Drill Book can be added to and improved, the proper course is to represent the matter to the War Office, bearing in mind that all units of Her Majesty's Armies, Cavalry, Artillery and Infantry, scattered as they are all over the Globe, must be ready at all times to take their place in any Brigade or Division they may be posted to, whether in Europe, Asia Africa or America.

Now as regards Musketry. Colonel Hutchinson says “The Afridis are *beautiful* shots.”

I think the beautiful shooting of the Afridis has been very much exaggerated. I have received many accounts of the marvellous accuracy of their fire at very long ranges such as 1,200 and 1,400 yards. But I know too much about long range rifle fire to take these stories seriously. In my younger days, I won several Viceroy's Cups and Championship Medals, chiefly for long range shooting, and I know how on a level measured range with every convenience and paraphernalia, with orthoptic sights, spirit levels and ventometers, it was extremely difficult to keep one's bullets on a clearly defined 3-foot bull's-eye at 900 and 1,000 yards, and now I am asked to believe that any Afridi, as he skips about among the rocks, finds no difficulty in accurately judging his distance and shooting a moving man, dressed in khaki, at 1,200 or 1,400 yards.

The fact is, the Afridi in the recent operations generally had a target, covering several hundred yards of superficial area, to shoot at, and if his bullet dropped anywhere in that area, it was called *beautiful* shooting.

The worst shot in our Army, if placed on a commanding hill, can hit a brigade encampment covering several acres spread out at his feet, and the same worst shot if following up a column of troops which (with its ordnance, baggage and hospitals) pretty well fills up the valley it is marching along, can be relied on to keep his bullets in that valley *somewhere* and with a fair chance of hitting *something*—it may be a mule in the foot or a dooly-bearer in the hand, but it is not *accurate* shooting, even if it is effective : unaimed fire such as the Turks employed at Plevna would do for this sort of target.

The Afridis have often got credit for wonderful shooting, when they have fired into an enormous target that they could not help hitting, although what they did hit must often have been hundreds of yards from the point aimed at. There are of course exceptionally good shots among them, chiefly men who have been trained in our Army, but a really good shot in guerilla warfare generally comes to the front.

At quite short ranges, the Afridis are, *or ought to be*, good shots and above the average of our Army. I attribute this to the fact that their system of musketry training is more practical than that which obtains in our Army.

For generations past the Afridis have indulged in "blood feuds" and every man goes about armed and shoots "on sight" the first, man he meets to avoid being shot himself. The result generally, is, that the survivors are expert in the handling of arms and quick at aiming, but it by no means follows that a good snipe shot can hit the biggest of haystacks at 500 or 600 yards.

Major-General Sir Edwin Collen said—

When I entered this hall this afternoon, the obliging Secretary of the Institution handed me this slip of paper on which was written the names of the gentlemen who had kindly intimated their intention of speaking on the subject of the lecture. When I looked at the paper I found that we were to hear about the political aspects of the question, and that the tactical lessons, artillery and cavalry questions, drill, musketry, etc., and the operations generally, were to be dealt with. I was concerned to see that I was supposed to review and sum up all these questions. Unfortunately we have not had the advantage of hearing the opinions on these various military questions as so much time has been taken up by a somewhat inflammatory speech which has been delivered. I may say at once, ladies and gentlemen, that I am not prepared to accept the statements which have been made. Nor can I altogether agree with my friend Colonel Hutchinson in his remarks regarding the causes of the frontier troubles, but it would be impossible for me to enter on this wide subject now. I will only say that I think events are too near to enable us to form an absolutely correct judgment as to what were the real causes of the outbreak, but that we should not cease to pursue our investigation of them.

Notwithstanding what has been said by Colonel Hill in his amusing speech in defence of the drill book, I must say that with Colonel Hutchinson's views on the tactical lessons to be learnt I am

entirely in accord. The hill tactics he has described are those which have always been practised by the Punjab Frontier Force which has kept watch and ward on the frontier for so many years. What we require is, I venture to think, that troops generally should be taught by camps of exercise in the hills, that constant practice should be given to the staff by practical exercises in the plains and in the hills, and that we should employ small compact forces, for it must be remembered that in mountain warfare as your numbers increase your mobility and real security decrease. I speak, of course, of the force at the front, for if you have to keep up a line of communication, it must be well guarded.

If we are really to profit by the experience we have had, the great thing is to collect all the evidence we can, to sift it, and to apply the lessons we learn, so that those who run may read. And above all let us be prepared at all points and vigilant everywhere, remembering that the "beacon of the wise is modest doubt," but that "the wound of peace is surety."

Ladies and gentlemen, many controversial questions have been raised, but if we differ on some matters, I am certain we shall be unanimous in appreciating the conduct of the campaign by that gallant and distinguished Commander Sir William Lockhart, and that we shall recognise most fully the bravery and devotion of the soldiers, British and Native, who fought in it.

I have already detained you too long, and I will now only ask you to permit me, on your behalf, to tender our grateful thanks to Colonel Hutchinson for his admirable, able and instructive lecture.

(The following speeches were handed to the Reporter as time did not admit of their delivery.)

General Morton—

We may, I think, congratulate the talented lecturer both on the way he has, while keeping in view its main features, condensed into a small compass the story of this campaign, and also on the tact with which he has gilded over those points which would arouse controversy. The few remarks I have to offer will be devoted to the tactical lessons of the campaign rather than its strategy or the history—though, if I had full liberty of speech, I should be glad to explain much that has been criticised in the public press on the strategical portion of the campaign.

Savage Warfare.

It has been always a surprise to me that the authors of our drill-book have not devoted more attention and space to tactical formations suitable to warfare with an uncivilised enemy. It will be within recollection of my military hearers that it was not till the introduction of the 1896 drill-book that what is there termed 'Savage Warfare' is even alluded to, and even then only one page is devoted to it; now as we have in the last forty-two years, since the Crimean War, been engaged with no civilised enemy, but on the other hand, have been engaged in constant conflict with uncivilised tribes in New Zealand, Abyssinia, in the Soudan, the Cape, India and elsewhere, it seems strange that what is our normal condition has received

so little consideration at the hands of those responsible for our military training, for, though we are told on page 128 of the drill-book that formations are to be adopted with reference to the nature of the enemy and the manner in which he is armed, it follows that those formations cannot be successfully carried out unless troops are trained in them in times of peace, and that is where I think the lecturer has made a point and called attention to a defect in our training.

Criticising the Drill-book.

In the same drill-book another omission is noticeable, one that has provoked the comments of officers of longer service and of greater experience than myself, and that is the absence of any elementary training in skirmishing. This found a place in all previous drill regulations and was of great assistance in the instruction of young officers and recruits. I therefore heartily support the lecturer's proposition that greater attention should be devoted to this subject, and I think if the Council of the United Service Institution will support his proposal, much good is likely to ensue by the ventilation of the subject in the light of the experience of the officers who have been recently engaged in so-called savage warfare. The next lesson to be learnt is, perhaps, that we have devoted too much time and attention to the training of our infantry on the level plains, to the detriment of the knowledge of, and experience with, hill exercises. Sir George White alluded to this defect in his farewell order, and I think it probable that under the orders of the present Commander-in-Chief, and of Sir William Lockhart, this admitted defect will shortly be remedied.

The "Light Company" Suggestion.

At the conclusion of his lecture, Colonel Hutchinson has advocated the return to the system of Light Companies, which existed in the British Army in the Peninsular War and up to the days of the Crimean War. Why they (and the Grenadier Companies) were abolished was that the remaining six or eight companies of the regiment were starved in order to supply two remarkably good companies—by this I mean that the captain of the Grenadier Company had the privilege of taking away from any other company every tall, fine looking man that caught his eye—in like manner the captain of this Light Company appropriated every smart active man of medium height. The result was—while two splendid companies were formed—the cream of the regiment—the captains and indeed the rank and file of the rest of the regiment were disheartened at finding that their best men were taken from them. If Colonel Hutchinson can show how he proposes to form his Light Companies without bringing about similar unsatisfactory results, more support will undoubtedly be given to him.

Major-General Tyler—

It has always been a source of astonishment to me to observe that though we have been continually engaged in mountain warfare for more than fifty years, there is not a word on the subject in the infantry drill-book, and I hope that the lecturer's suggestion, that there should

be an appendix to the drill-book dealing with the subject, may be carried out. Colonel Hutchinson's remarks regarding the mountain artillery cannot fail to give great satisfaction, not only to the officers and men of the artillery who served in the campaign, but to the officers and men of the regiment generally. When the expenditure of ammunition becomes known, we shall no doubt hear the usual sarcasm as to the small execution done by such a prodigious number of shells; but that I submit is not the point: the question that should be replied to is—What would have been the losses to the infantry at Dargai and the other passes if it had not been for the guns? I will refer to the question of expenditure of ammunition presently.

Turning to the remarks in the lecture on the mountain artillery, I observe that Colonel Hutchinson is in favour as a general rule of batteries in hill warfare being split up into sections, because, he asserts, better fire effect would be thereby gained, and the guns can be more easily handled separately than collectively. The mountain artillery drill-book certainly contemplates the necessity of breaking up a battery into sections. But as the exception, not the rule. I am by no means an advocate of absolute adherence to any drill-book, and I am ready to admit that there were occasions, and perhaps frequent occasions, during the Tirah Campaign when the breaking up of a battery into sections became a necessity. But the information in private letters from artillery officers engaged in the campaign is that the system was followed to an extent which was not only unnecessary, but at times dangerous; and that some General Officers seem to look on a gun as a large sort of rifle, and ignore the power derived from the combined fire of a battery conducted on modern principles. Fire discipline is the combination of qualities within a battery which enables its commander in the shortest possible time to bring effective fire on such targets as may be required by the tactical situation. This definition assumes unity of command, and if that unity is destroyed, a large portion of the fire power of the battery goes with it. I will try to explain. In the attack on a position, after the range and fuze have been found, each gun of a battery can fire about once in a minute; thus in five minutes a battery of six guns may fire 30 rounds of shrapnel shell, containing a total of 3,300 bullets, on to the position. But a section could only fire ten rounds, or 1,100 bullets, in the same time, and while the shell of the whole battery would search out a width of 200 yards, those of the section would only cover a width of 66 yards. But the full effect of fire depends on its rapidity, which causes confusion and demoralisation; a sudden and overwhelming shower of shells poured on to a position produces an effect immeasurably greater than what would be produced by the same number of shells fired slowly. The inferiority of section fire to battery fire cannot be estimated by merely dividing the latter by three. I have spoken of the danger which may be incurred through working batteries by sections instead of entire: this danger is most apparent in the defence, and during the many retirements necessary during the campaign the troops were always on the defensive. From the letters I have received it would appear that had the Afridis resorted to the Ghazi rushes for which tribesmen were formerly famous, more than one section would have met with disaster; for though a battery may be depended on to defend itself against a sudden

attack, it is certain that a section would be quite unequal to the task. At Ahmed Khel the Afghan swordsmen tried to rush a battery, but were mowed down by shrapnel and case in the attempt: at Tamai the Arabs charged a battery which was in the open between two squares, but the guns beat off the attack. Yet these two attempts were so nearly being successful that if the six guns of each battery had not been well and quickly served, the results might have been very different. Colonel Hutchinson says that, when sections are separated, "a converging fire can often be obtained by dispersion, which is more effective than the direct fire of a larger number of guns assembled in one spot." But how is such a fire to be directed when the sections are perhaps far apart? It is often a matter of minutes to point out an unexpected target to a battery in action on the practice ground, and it is certain that in hills and irregular country the difficulty would be far greater. Signalling would seem to be the only plan, but it is a slow and vexatious process, constantly misunderstood, and the action might easily pass into another phase before the explanation was complete, and if this were to occur, fresh orders would be necessary, and the confusion which would follow may be imagined. Concentration of fire by dispersion of guns has often been tried, but it has never proved successful. If I might venture to offer advice to future commanders of mixed forces as to the management of their artillery, it would be this: "Do not break up a battery if you can possibly help it, but preserve the unity of command, and keep in hand the great power of combined fire." I believe if my advice is followed, one result will be a great decrease in expenditure of ammunition, for there is no doubt that the system of separation is a most expensive one in this respect.

Colonel Hutchinson quotes an artillery officer who wonders why the mountain gun, which did such good service during the campaign, should be abused when the fighting is over. The gun has been and is a good one, but that is no reason why we should not try and get a better, and when the horse and field artillery, the heavy batteries and the siege train have received or are about to receive new armaments, mountain artillery officers may be excused for asking if their branch is the only one in which no progress is to be made. I hope that at no distant date the mountain artillery will be armed with a more powerful gun, carrying a bigger and a better shell, and yet that the equipment will be within the carrying power of mules, a limit which must always govern the weight of a mountain gun.

Major-General Elliot—

As the Director, Military Education, in his interesting lecture has not touched on the work done by the cavalry during the late operations on the frontier, a few remarks may, I trust, not be considered irrelevant.

It has hitherto been generally accepted, owing to difficulties of ground, that cavalry were rather out of place over the border, except perhaps for minor duties, such as communications, convoy, post and orderly work. However the brilliant mounted services of the Guides, the 11th and 13th Bengal Lancers in Swat and Bajour and at Shabkadr,

as well as the dismounted work of the Central India Horse and 6th Bengal Cavalry in the Chamkanni country indubitably prove the extraordinary value of the arm, as well as the mistaken view held of its capabilities in a difficult hilly country. We find the lance and sabre being used at speed with deadly effect over the worst of ground, as a matter of course, and the mounted branch establishing such a funk over the tribesmen that in one particular instance on the 30th September in the Mamund Valley two weak squadrons of the Guides are enabled for five hours to hold the enemy in check although in large numbers, and effectually preventing them making good a desired flank attack. Again Captain Wright (and a Brigade Transport Officer, Captain Baker of the 2nd Bombay Grenadiers) with a half squadron of the 11th Bengal Lancers during their memorable ride from the Malakand to Chakdara, swam the Swat River, and made their point regardless of difficulties by land, water or the rifles of the tribesmen. The dismounted work of the Central India Horse and 6th Bengal Cavalry under Brigadier-General Hill on the Kurram side gained, I understand, that gallant officer's unqualified approval; the men climbing the hills crowning heights and taking their share in the ordinary duties of the infantry soldier with the utmost zest and keenness, showing an excellent fire discipline combined with an intelligent appreciation of the requirements of the situation. In his official despatches Sir Bindon Blood refers to the cavalry under his command in the handsomest manner, stating they swept the country everywhere cavalry could go, carrying our reconnaissances, protecting signalling parties and watching every movement of the enemy—establishing such a reputation that the enemy even when in greatly superior numbers never dared to face them in the open.

A few words in respect to weapons used by the cavalry. We may safely assume as regards future work on the frontier that the majority of the Pathans have and always will have Martini rifles, if not a better weapon, and what is more to the point they know and won't forget how to use them. The present carbine with which the majority of the cavalry are armed is the Martini-Henry—fairly effective to about 600 yards, but certainly not in it in a fire fight with the long rifle of the same calibre. The sooner the '303 Magazine Lee-Metford is issued to all ranks the better. It will increase their efficiency to a very appreciable extent and obviate the necessity of sending two kinds of ammunition into the field for the mounted branch. The intelligence and musketry aptitude of all is quite up to the requirements of the superior weapon, and its issue will be fully appreciated and accepted as a compliment for services in the field. In regard to the lance. The efficacy of the short hogspear as a leader's primary offensive weapon has been again demonstrated. This points to the desirability of not overloading the men with heavy, clumsy or too long lances. The value of the lance as a lethal weapon is in the sharpness of the point, the toughness not the thickness of the shaft and the balance secured, by the butt which is none the worse if shod with a steel thrusting point. For lancer dismounted work the experience gained in Burmah was confirmed on the frontier—that it is better to take the lance with the carbine when dismounting for fire action to any arrangement that necessitates its being left strapped to the saddle. The one disadvantage of this method is that if pressed for time on remounting, the

lance and carbine have to be taken together in one hand, but if as recommended the lance shaft is not of clumsy proportions, any man of ordinary agility can handle both at once, and mount with sufficient ease. It is obvious this operation is only necessary when there is not time to ante-bucket the carbine; once up on the saddle there is no further difficulty. The advantages are so numerous that I will enumerate them—

- (1) Time gained in getting into action.
- (2) Improbability of the lance being either broken or lost; being with the lancer.
- (3) In event of carbine ammunition being exhausted and individual man's horse being shot or getting loose; ability of the lancer making a good fight of it when interfered with: as by back strapping his carbine and using his lance double-handed he is, if of normal activity, still a formidable opponent. Until shot down he is quite safe from mounted attack, and more than a match for any single swordsman on foot.
- (4) If required to attack on foot at the completion of the fire fight, he can use his lance in above manner with great effect even against a bayonet. His sword is left recollect on his horse, so without his lance he has the one alternative of using his carbine clubbed at close quarters.
- (5) It is easier to manœuvre the led horses out of fire and under cover when the lances are not strapped to the saddle and sticking up like signal posts to attract attention and catch in any overhanging tree or obstacle.

The sabre and revolver were also at times freely used and with great effect. The former weapon will always hold a prominent place in the affection of every cavalry leader notwithstanding the fascination of the lance, and in the *melée*, if the edge is as it should be, sharp as a razor, and the operator has the knowledge and practice to use it, will always more than hold its own. The point to recollect is that it is bad policy to over-sabre light men. The revolvers in general use were the Webley and the Frontier pistol (Colt). This latter, single-actioned and carrying the carbine cartridge same bore '440, is perhaps still the most effective pistol for mounted work, as it has great stopping power, simplicity and strength combined.

Regarding the transport of the Native Cavalry in the field and the policy of Government in limiting the amount from one pony or mule to two men, to 1-3, it is found that animals of necessity are severely overloaded in carrying equipment and share of forage indispensable. The result is either the transport of regiments becomes prematurely unserviceable or the Transport Department have to supplement sanctioned numbers. This is obviously an anomaly as what has been taken with one hand is in the field returned with the other. The old scale of one animal to two men for all requirements worked admirably, regimental *barbardari* was efficient and sufficient. Now-a-days it is neither. We may however perhaps congratulate ourselves on the general efficiency and certainly on the high spirit pervading all ranks. There is no doubt that the generous appreciation extended on all sides to the efforts of the mounted arm will further stimulate all

to attain an even higher standard of individual excellence in horsemanship and skill at arms, two of the most essential points for excellence in the field.

I should like here to draw attention to the disadvantages the British cavalry serve under inasmuch as they do not get the same or even a proportional amount of service training in the field of their more fortunate brothers in arms in the native branch. I am perfectly aware that owing to transport and commissariat requirement their use is often barred from a pecuniary standpoint only. I trust however that in all future operations, on the frontier or elsewhere, a regular proportion of British cavalry may be seen invariably.

When we consider the ever recurring grind and self-denial the present standard of cavalry requirements entail on officers, non-commissioned officers and men, without the lining to the cloud that field service gives, the horizon is of a dismal and disheartening sameness. If the unit expense is prohibitory, which, considering the enormous value of the experience gained, I cannot conceive possible, I strongly advocate the cause of the officers and hope we may see on all future occasions in the field, many of them attached to native regiments to supplement the lamentable deficiency in this respect. I can assure them, they will be received with open arms.

The Commander-in-Chief, Sir Charles Nairne—

I must congratulate the lecturer on the clever way he has managed to avoid controversial subjects connected with the Tirah Campaign on matters of too recent occurrence to make public discussion permissible. There are hundreds of questions one would like to ask, but prudence forbids. There is one matter, however, referred to by Colonel Hutchinson, on which I may be permitted to remark since a very great friend of many of those present here, a dear friend of my own, was one of the principal actors, and he is alas no longer with us to answer for himself. I allude to General Yeatman-Biggs and the attack on Dargai on the 20th October. Colonel Hutchinson says a purely frontal attack against a well-armed enemy strongly posted must always be attended with dreadful loss of life. A direct attack unsupported by any demonstration against a flank must always be so costly in life that it should never be resorted to if there is any way out of it. But surely this is of the nature of elementary tactics. The lecturer himself would, I feel sure, spin any subaltern who gave any other answer to a question embracing this subject. And yet General Yeatman-Biggs was a very able and experienced soldier. He studied all professional work and the art of war most carefully and he brought to that study a clever brain and a mind vigorous beyond the average. I think therefore you will agree with me that we may be sure that, subject to the orders he had received, he would never have made a frontal attack unsupported by any demonstration against a flank had the latter been practicable. The man on the spot is ninety times out of a hundred the better judge than any who criticise at a distance, and though the published despatch states that the General-in-Chief expected different tactics, I for one will assume that General Yeatman-Biggs knew perfectly well what he was about and did the best for his troops that was possible at the time.

RESERVE OF OFFICERS FOR THE INDIAN ARMY.

BY MAJOR H. MULLALY, R.E.

MOTTO.—The spirit of an Army is in its Officers.

*Good and sufficient leading, an essential element of success
in war.*

“Man, always man, this is the first of all instruments for battle.” So wrote the Russian General Dragomirov to emphasize the fact that success in war is not merely dependent on superiority of arms and equipment, but is primarily due to the moral power of well led troops. It is a mere repetition, in a different form, of the well-worn saying that “in war, the moral forces are to the physical as three to one,” and marks the fundamental importance of discipline and good leading, not only in quarters, but especially in the field, where the terrors of the actual battle change the apparent character of most men in a moment and where fatigue and privation tend to break down the constancy of the soldier and render him less ready to follow the directions of his leaders. This combination of discipline and leading has been an essential factor of success in war through all ages, and has particular value in the present day, when the prolonged strain on the nerves, due to the introduction of long-range fire-arms and the ever-increasing production of implements of destruction, adds importance to what Napier terms “the mechanical courage of discipline,” and when loose formations of attack and the consequent absence of the feeling of close mutual support, formerly to be found in heavy columns and line formations, increases the value of the example of brave leaders.

Almost every well-known writer on the subject of war has laid particular stress on the value of the moral factor embraced in the two words “discipline” and “leading.” Prince Kraft claims that a combination of these qualities was the cause of the superiority of the German Infantry in 1870-71, and says that they “will make any infantry superior to that of the enemy if the latter has not attained to the same standard.” Their value is undisputed in the case of European armies; but when applied to the case of mercenary troops, or to those

recruited from savage or semi-civilised races—even though of the best fighting classes—their importance becomes paramount. “When the Lieutenant runs to the front, we must run with him.” “We had no officers left to tell us what to do, so we went off.” “You see how well we can fight when properly led, but without officers to command and *bandobast kar* for us we are helpless.” These remarks, and scores of others to the same effect, all point to one essential element of success in war, *viz.*, leading. It is the soldier’s commander—and in most cases his immediate commander—who inspires him to do great deeds; but, setting aside exceptional cases of individuals who display great capacity for command and are born rulers of men, this influence, this guidance of individual minds, is most frequently observed in cases where the leader has been associated with the men in peace—has instructed them, praised or blamed them, rewarded or punished them, and has identified himself with them in their everyday life as men and in their preparation for war.

The late Field Marshal, Sir Patrick Grant, in 1858, said:—“It is only through the instrumentality of their European officers that Native Troops are ever imbued with a spirit of confidence and self-reliance on service.” The value of the Indian Army, and its components and discipline, have no doubt greatly improved since this opinion was expressed; but, in spite of such advances, the British officer is still—and ever must be—the mainspring of our military organisation, “the soul of our infantry,” and, unless a sufficient number be available when required, the object for which the Indian Army exists—*viz.*, the defence and security of the Empire—cannot be held to rest on a secure basis.

Development of the Native Army before the Mutiny.

As leading by British officers is an essential condition for our success in war, especially in the case of Native Troops, it will be well to briefly consider the causes which have led to the present establishment of British officers in the Native Army, omitting all reference to British Troops, as their reserves, both in officers and men, can only be suitably and finally provided from Home.

In the seventeenth century, when the merchants of the East India Company were trying to establish a footing on the coasts of India, the germs of the present army first appeared in the form of petty guards of a few men. In 1695 natives were first enlisted; but it was not till some 50 years later—in the middle of last century—that sepoys were first regularly

trained to European forms of discipline under European officers. Their numbers were at first small and they were chiefly found in Madras ; but after Plassey the forces in all three Presidencies were largely augmented, so that in 1772 there were about 43,500 Native Troops in the Company's Service, 24,000 of these being in Bengal. Until 1796 each battalion of infantry was commanded by a Captain, the company officers being subalterns ; and all the officers in each Presidency were borne on one seniority list from which they were appointed to different regiments. But in that year a radical change was made. Each battalion was given a largely increased establishment of British officers, consisting of :—

- 1 Lieutenant-Colonel.
- 1 Major.
- 4 Captains.
- 11 Lieutenants.
- 5 Ensigns.

Total ... 22 officers.

Separate cadres were formed for each regiment of two battalions,* to which the officers were permanently attached and in which they were promoted in order of regimental seniority.†

This re-organisation marks an important turning-point in the history of the Indian Army. Hitherto the East India Company had been a mere trading corporation, having but a precarious footing in Hindustan, and holding a position no better than that of equality with some of the lesser Native States and of political inferiority to the more powerful ones. Plassey marked our ascendancy in Lower Bengal ; the subsequent occupation of Oudh, and the expansion of British influence in Southern India ; the Mahratta war of 1778, and those in the Carnatic against Hyder Ali and Tippoo—all clearly showed that the time had come when a new line of policy was required. The appearance of equality with adjoining States was to be swept aside ; and it was found that an irregular army was no longer sufficient for the purpose. Leading by British officers was to compensate for the absence of British soldiers.

Thus re-organised, and with a considerable augmentation of force, the Company's Army was a powerful weapon in the hands of the Marquis Wellesley, who carried the British flag

* The system of double-battalion regiments had been introduced ten years previously, in 1786.

† There was a separate list for Colonels and Lieutenant-Colonels, to which Majors were promoted in order of army seniority as vacancies occurred.

to Delhi on the one side and throughout the Deccan and Mahratta territory on the other. The British were no longer traders on sufferance, but the arbiters of Hindustan ; and in 1808, when the great Mahratta war came to an end, the strength of the armies in the three Presidencies amounted, on a peace footing, to 24,500 Europeans and 130,000 sepoys.

War and expansion, however, still continued to be the rule in India during the first half of the present century. The Peshwa was dethroned ; the other Mahratta States declined under the pressure of the rising Power ; and engagements in the form of an alliance with Persia showed that the new Rulers in India could not limit their action to Hindustan, but were obliged to accept other and wider responsibilities inherent in their dominant position. Arakan and Tenasserim, Cachar and Assam, all came under British influence ; war was carried into the fastnesses of Nepal and across the sea into Burma ; Sindh and the Punjab were conquered ; and finally Nagpur and Oudh were annexed. The widespread effect of a growing Empire in Asia, which had first shown itself in our dealings with Persia, also became more marked. The great Power in the far north began to cast its shadow over the Aral Sea and the wild steppes on the banks of the Jaxartes ; envoys and emissaries were despatched far beyond the limits of the Company's territories to ward off and counteract the coming danger ; and what may be termed the Central-Asian policy of the day culminated in the First Afghan War with its lessons and disasters.

The growth of Irregulars and causes of decay.

These extended operations, and the resulting expansion of territory and increased responsibilities, naturally entailed further expansion in the military establishments under the Company ; but this increase in later years largely took the form of special local forces and corps. Besides the regular cavalry regiments in the Bengal Army there were already several regiments of Irregular Silladar Cavalry, and there were a few regiments of the same kind in Bombay. On the annexation of the Punjab an irregular force was raised for the defence of the frontier. In Hyderabad, too, a force was established to support the position of the Nizam. And similar " contingents," and irregular or local forces were created in numerous other Native States. These forces added greatly to the armed strength of India ; and, being composed of the best local fighting material, undoubtedly, for the time, also added to the power of the East India Company, so long as conditions

suited them ; but they were certain to prove a source of infinite danger whenever a spirit of unrest or subversion to the governing Power might arise. It was a notable instance of an Empire being ruled on commercial principles. The stress no doubt was great. Kingdoms were acquired in rapid succession, and had to be kept in order. British bayonets could not be paid for, even if they could be obtained. Mercenary bayonets had, therefore, to be substituted. But in the time of conquest and on the flood of the tide the moral factor, "leading," was undervalued. Not only were some 21,000 "irregular" cavalry and 36,000 "irregular" infantry added to the Company's Service, each regiment under the leadership of but three British officers ; but the regular regiments themselves were largely deprived of their officers to feed this spurious growth of irregulars and to fill the numerous civil, political, and other so-called "staff appointments" which had to be created and increased with each accession of territory. The appointments in the irregulars carried better pay and higher relative position ; civil appointments of all descriptions were eagerly sought after as affording opportunities for distinction and rapid advancement ; and service in the regular regiments fell into contempt. In short, the regular army was gradually sacrificed to the irregulars and to the growing search on the part of British officers, for so-called "staff" employment. Regular battalions had frequently but few more officers than irregular ones. Those they had considered themselves unlucky and were discontented, while their *confrères* in the irregulars were picked leaders, with brilliant prospects before them. The credit of the regular army was destroyed ; inefficiency followed ; discipline and "leading" were undermined ; and the paucity of regimental officers thus caused, the deterioration which gradually pervaded all ranks, and the injudicious curtailment of the powers of Commanding Officers, have been stated by the highest authorities to have been among the causes which led to the Indian Mutiny.

This drain on the officers of the regular regiments was so much felt after the annexations of the Punjab, Oudh, and Nagpur, that the establishment of officers for each regiment was raised to 25. But this increase was merely nominal, and was absorbed in the larger number of civil appointments which had to be filled ; so that when the Mutiny occurred, there were few regiments which had a dozen effective British officers, while those in Bengal had still fewer, the majority being newly joined subalterns.

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During the Mutiny the Bengal Army dissolved. But few regiments remained "true to their salt." Regulars and irregulars alike disbanded themselves and fought against us. There was little to choose between the two classes ; but where the irregulars did mutiny, their revolt was more complete because they were less under British influence, and they were more formidable adversaries because the small number of British officers produced better leadership on the part of the Native officers. The contingents of Gwalior, Oudh, Bhopal, and Kotāh all joined in the rebellion, the first named gaining the only important success in the open field which the rebels could boast of ; and with the exception of the Punjab Frontier Force, the Gurkha regiments, and a few corps which, though officered on the irregular system, were in point of organisation and pay on the footing of native corps of the line, there were no irregular regiments in Northern India which weathered the storm.

The services of these faithful irregulars—the men of magnificent courage and capacity for war, under their incomparable leaders—will always hold a prominent place in the history of India. But though their deeds were great, the magnitude of the crisis and the happy consequences of their action appeared to upset the even balance of popular judgment and produced a tendency to credit the irregular system of regimental organisation with results which were due to causes of a perfectly different nature. The Punjab Frontier Force, the Ferozepore Sikhs, and the Sirmur Battalion of Gurkhas did not throw in their lot with the British because of any inherent virtues in their organisation as irregulars, but because they had not become tainted with the canker of laxity and deterioration which had eaten into the heart of the Bengal Army—regulars and irregulars alike—through a long course of injudicious military administration, and because they belonged to distinct nationalities which were out of touch and sympathy with the men of Oudh and the North-West Provinces. It is true that the pernicious system of sacrificing the regular army to obtain officers for the newly acquired provinces had thrown some of the most able and ambitious British officers into the Punjab, where their qualities for command had been developed by contact with the more manly and warlike races of the north ; but others of equal merit were with the contingents of Oudh, Gwalior, and elsewhere, and many a Nicholson and Probyn disappeared in the wreck, not from want of capacity, but because, in the general conflagration, irregulars as well as regulars could not be restrained in the affected

areas where they were of the same race and sympathies as the mass of the mutineers.

Re-organisation after the Mutiny.

In 1858, a Commission, which was appointed to enquire into the organisation of the Indian Army, recommended that "the Native Infantry should be mainly regular," with such additional irregular regiments as might be recommended by the Indian authorities, provided always that "the regular regiments should preponderate." But their advice was not taken. The lessons taught by the losses in officers during the Sikh Wars and the Mutiny were forgotten; the glamour surrounding the deeds of the few faithful "irregulars" influenced the judgment of those who had to make the final decision; and other causes were at work which ultimately conduced to the re-organisation of the Native Army on the "irregular" system, with a slight increase in the establishment of British officers for each regiment, and to the formation of the Indian Staff Corps, which was devised to include all officers employed exclusively on military duties as well as those transferred to civil appointments, and to provide a seniority list for the promotion of all after fixed periods of service. The peace establishment of British officers per regiment was first fixed at six, but was subsequently increased to eight for the infantry and nine for the cavalry. Thus the re-organisation of 1861 practically reproduced a system similar to that which had been in force before 1796, but which had in that year been rejected as being insufficient for the growing necessities of the East India Company.

When this system was introduced—or really reproduced—in 1861, the problem which had to be solved was very different from the situation of the present day. The dominant feeling which then possessed all minds was how to make India *internally* secure and to preserve it from a recurrence of the events of 1857. For this purpose it was unanimously agreed that the establishment of British Troops should be largely increased and that the artillery should be removed from Native control. This involved large expenditure, which had to be met by retrenchments in other directions. Before the Mutiny—and as province after province was gradually absorbed—the Native Army had rapidly grown from its proper position as a useful auxiliary to a condition out of all proportion to its original purpose. "It dwarfed and overshadowed what it was intended only to supplement and assist." The Mutiny displayed the error which had been committed in its true light,

and the Native Army was to be restored to its correct position. In future the backbone of the defence of the Empire was to be the British soldier, and, so long as a sufficient British force was maintained, the Native Army would only be required to relieve it of many duties which could equally be performed by inferior troops or to occupy localities unsuited for Europeans. The organisation of the Native Troops became, therefore, a matter of somewhat minor importance. Their numbers were reduced, and a small establishment of better-paid British officers was considered sufficient to train them for the immediate purpose in view, *viz.*, as an auxiliary for *internal* defence. The preservation of peace in India and the maintenance of our rule was the first and essential condition which had to be secured; and this was a sufficiently difficult problem without introducing any considerations of our having at some future period to repel external aggression or to match our Native Troops against those of a Western nation. The military organisation of the day had to be adapted to the existing political and financial conditions; and the past history of the country has proved its suitability to the immediate requirements of the situation. India has developed in a remarkable degree; internal peace has been preserved; and the Indian Army has proved sufficient for its past duties.

Changed conditions render the system no longer suitable.

But the progress of military science, the rapid advance of Russia in Central Asia, and the later increase of French power in Further India have produced a new set of conditions which can no longer be ignored. In 1866—five years after the re-organisation above referred to—Europe was disturbed by news of the rapid and overwhelming defeat of Austria at the hands of the Prussians. The breech-loader had appeared, with startling and decisive results. Then followed the greater war of 1870-71, which marked a great development of artillery and established the necessity for loose orders of attack. And each succeeding year has produced further improvements in armaments and corresponding changes in tactical formations, till, at the present time, we find even frontier tribesmen armed with magazine rifles, and we know that the terrible effect of fire in a modern battle is such that, as Prince Kraft says, "the hearts of men become so affected by the sense of danger that there is an end of all manœuvring; they can neither move to the right nor to the left and can only advance or retire." And retire, most of our Native Troops will assuredly do under such circumstances, unless provided with the best

leaders the world can produce—*viz.*, British officers—and plenty of them.

When the Mutiny was quelled, the *internal* security of the country was all-important; the land frontiers of India rested on mountain barriers which were believed to secure immunity from external danger; beyond them the re-instated Amir of Afghanistan, Dost Mahomed, had lived to become good friends with his old foe England; the forces of Russia in Central Asia were still confined to a few scattered posts in the Kirghiz steppes and to an insignificant "naval station" at Ashurada in Caspian Sea; and France had no pretensions to power in Asia. But now, on the North-Western and Eastern borders of the Indian Empire we are confronted by two of the greatest military Powers—both strong in their sea power, and allied by treaty and mutual interests. In Afghanistan, Western ideas are rapidly gaining ground, especially with respect to warlike preparations, multiplication of armed forces, and the manufacture of modern instruments of destruction. And even the border tribes, which formerly were untrained and ill-armed, and whose sole military attribute was bravery, are now found in possession of fire-arms of the latest patterns, with an ample supply of ammunition, and adopting tactics which show that they are rapidly acquiring and assimilating the principles of the art of war as taught in modern schools.

This is the difference between the situation in 1861 and that in 1898. These are the forces which the Indian Army must be prepared to meet, either separately or in combination. The comparative insularity of our position in India is fast disappearing and we are being forced to accept the responsibilities of a continental Power. We are no longer a nation in a "tight little island" which can depend on its fleet alone, but are day by day beginning to see more clearly that, in Asia, empire will depend, not necessarily on "big battalions," but on the efficiency, discipline and leading of our Army. Until 1796 the East India Company had an irregular army, officered—or rather under-officered—on one general list, not unlike the Staff Corps of the present day, with a Captain as commandant of each battalion and one Subaltern to each company of their infantry. Finding themselves confronted with Native States, which disputed their claims to equality and resented their intrusion, they recognised that such an organisation was no longer suitable, and totally insufficient for their wants. Can it then be said that a similar organisation is suitable or sufficient now, when military science has immeasurably increased, when first

class Western nations appear on our borders in place of Mah-rattas and Rohillas, and when continental methods of war may be expected to replace those of Hyder Ali and Tippoo? If such system of under-officering regiments was found—and proved—to be impossible in the days before the “Brown Bess,” when shock and hand-to-hand tactics were in vogue, and when it was impossible to hit a haystack at 300 yards simply because the bullet could not carry so far, surely it is still more dangerous now, when even frontier tribesmen can, at several hundred yards, cripple the efficiency of battalions by shooting down the British leaders.

Von Muffling says that “for a battle there is not perhaps an army equal to the British.....British Troops are less disconcerted than those of any other army.” Marshal Ney, the “bravest of the brave,” also pronounced the British infantry to be the best in the world. Yet no one would venture to suggest a reduction in the number of British officers with each battalion of these matchless troops. Our military policy in India and the proportion of British to Native troops shows the comparative value which is set on the worth of the British soldier and the sepoy. The Commission of 1858 expressed the opinion “that the amount of Native force should not, under present circumstances, bear a greater proportion to the European, in cavalry and infantry, than two to one for Bengal and three to one for Madras and Bombay respectively.” How then can it be conceded that Native troops will satisfactorily bear the brunt of a modern battle with fewer British leaders than are considered indispensable for “the best infantry in the world?” It is an impossible demand on their capacity for war; it involves the hypothesis that our sepoys require less leading and, *ergo*, are better troops than the British themselves; and is contradictory to the fundamental principles on which we hold India.

So long as it was only a question of preserving the *internal* security and prosperity of India, these contradictory conditions did not exist, and the under-officering of Native regiments was rather an advantage and served a distinct purpose, politically, administratively, and financially. But just twenty years after the Mutiny, and less than eighteen years after the present system was introduced, a Russian Mission was found in Kabul; Dost Mahomed's successor was a declared enemy of the British in spite of his father's treaty of alliance; and a great Western Military Power suddenly appeared in foreground of Indian politics. And who can predict what the next twenty years may produce? It has been shown that the

Indian Army—or a considerable portion of it at least—must now be prepared to defend the Empire from external forces and may be called upon at no distant period to face all the conditions of a modern battlefield. A large portion at least of the material of our Native Army is composed of races possessing the highest military virtues and is eminently calculated for giving battle; but if the best use is to be made of this splendid material and the Native troops are to take their place unflinchingly by the side of British regiments in the coming battles of the Empire, they must have equal leading. Such leading must be by British officers; and to secure its fullest effect, the officers must not be strangers to the men, hastily appointed when the crisis arises, possibly with a slight knowledge of the dialects spoken by the men, and not understanding their various caste prejudices and methods of thought; but they must know and be known to their men, so that the men may have confidence in them and be prepared to follow them under the most trying conditions.

The true solution.

Thus, we are forced to the conclusion that the true solution of the difficult question under consideration is to be found in an acknowledgment of the fact that, though the existing irregular system may have served its purpose, it is no longer suited to the times and to the growing responsibilities of the Indian Army, and in the determination to permanently and materially increase, while there is yet time, the number of British officers on the establishment of the Native Army in India.

What the precise increase should be must largely depend on financial considerations; but as each British Infantry battalion takes the field with three officers per company, it does not seem extravagant to suggest that the object to be kept in view should be the gradual increase of the establishment of British officers of the Native Army until ultimately each company of Native Infantry shall have its two British officers in addition to the Battalion Staff (*niz.*, Commandant, Wing Commanders, Adjutant and Quarter Master); and that as a first step in this direction at least one or two British officers should at once be added for each battalion. For reasons explained further on it is also considered necessary that more officers should be added to the establishment of the Commissariat-Transport Department, to enable that Department to perform its own duties in time of war without causing a heavy drain on regiments which already have too few British

officers. As regards Native Cavalry the matter is not one of such urgent importance. The irregular system has always been better suited to Native Cavalry than to Native Infantry. The action of cavalry in battle is sudden and they are seldom exposed to a prolonged strain under heavy fire; hence, liability to demoralisation and the necessity for iron discipline and many leaders is not so marked as in the case of infantry. Statistics also show that the losses of cavalry in the field are, on an average, only about half those of infantry. And our Native Cavalry regiments have already two British officers per squadron. Moreover, as said above, the question resolves itself into one of funds; and until the pressing needs of the infantry have been supplied, the cavalry must be content with their present establishment of officers.

Formation of separate corps for field service and for garrison duty considered.

In a great war the Indian Army will have a double task to perform—a portion will take the field to secure the inviolability of our frontiers, while the remainder will have to perform the equally important task of maintaining the stability of our rule—and it may, therefore, be suggested that an increase in the number of British officers might be partially avoided if these dual responsibilities of the army were frankly recognised and if the recommendation of the Commission of 1858 were adopted, *viz.*, to organise the Native Army both on the “regular” and on the “irregular” systems; the regulars—fully officered—being detailed for service in the field, while the irregulars—with three or four British officers per regiment—were reserved for internal defence. Such a solution would have, no doubt, the advantage of economy, and would enable the service battalions to be always maintained on a war footing; but this would allow of no provision to cover wastage, and it would be open to the great objection that it would involve the formation of *corps d’élite* and a re-organisation of the Indian Army on lines which would be contrary to the fundamental principles of the military policy hitherto observed. Irregular corps like those on the North-West Frontier and others formerly in existence—raised for active war and constantly engaged,—served their purpose well. But irregular corps, raised solely for garrison duties and knowing that they would not share in the honours and rewards of their more fortunate regular comrades, would be very different. The spirit of the officers would be broken; only recruits of inferior types could be obtained; and in a short time such irregular garrison troops would become little better than police, though more expensive.

And such an organisation would also tend to destroy the balance of power now secured by the existence of what may be termed armies of distinct nationalities—some inferior to others in fighting capacity, but speaking different languages, of different religions, and having different customs and sympathies. The tendency would be for the regular regiments to gradually become entirely composed of the more warlike northern races, and a new and great danger would be created out of all proportion to the temporary and doubtful advantages gained.

For these reasons it is thought that such re-organisation would be inadvisable; and, as it is recognised that financial or other considerations may prevent, or postpone, the addition of more British officers to the Staff Corps, it is necessary to see what can be done by other means to secure a reserve of officers to ensure the efficient leading of Native Corps in the field, to fill the departmental services, and to make good the inevitable wastage of war in the event of the Indian Army becoming involved in a serious struggle before the permanent establishment of Staff Corps officers may have been raised to a suitable strength.

Strength of a reserve of officers considered.

Before endeavouring to suggest such measures, it is necessary to clear the ground by—*first*, trying to form some idea of the number of additional officers which will be required; and *second*, by defining the conditions governing their active military employment, *i.e.*, the circumstances under which the military services of reserve officers will be needed and the probable state of the country at the time.

In dealing with the first point—the strength of the reserve—it is difficult to arrive at any precise estimate, as the requirements of each case will depend on the magnitude of the operations and of the force employed. But it will help to a more clear understanding of the situation if we take as a basis the simple case of the mobilisation of one division, and see how many additional officers will be needed for staff duties and to complete regiments of Native Cavalry and Infantry to war strength.

Appendix B to Part XI of the Field Service Manual shows that in one "Division of all Arms," with an aggregate strength of about 15,000 fighting men, there are seven Native Infantry regiments, one of Pioneers, and three of Native Cavalry, besides British Cavalry and Infantry, Artillery, Sappers, and Departmental Units. On a peace footing each Native

Infantry or Pioneer regiment has eight combatant British officers and each Native Cavalry regiment has nine; the war establishments being 12 and 10 respectively—four British officers being added, on mobilisation, to each Infantry or Pioneer battalion, and one to each Cavalry regiment. Thus, to provide for the mobilisation of one "Division of all Arms," for a serious war, even on present system, 32 Infantry and three Cavalry officers must be found to complete regiments taking the field.

Then, again, from the Field Service Equipment Tables it will be seen that, after omitting Artillery, Engineer, and Departmental Staff appointments, 25 staff officers will be required for the Divisional, Brigade, and "Divisional Troops" staffs of a "Division of all Arms"—without any Line of Communication Staff; and assuming that the British and Indian services will have an equal share in these appointments, this will add 12 or 13 more Staff Corps officers, who will have to be found for the mobilisation of the Division. Thus, before one Division can be placed in the field, 47 or 48 additional Staff Corps officers must be appointed for staff and regimental duties alone, besides which a few staff officers will be needed for the line of communication, and many other regimental officers will be required to meet the requirements of departmental services.

In the last Afghan War, during the spring and summer of 1880, there was a fighting force of between 58,000 and 60,000 men in the field, which is equivalent to about four Divisions of the present accepted strength; and during the recent frontier disturbances a force of about the same strength has been employed in the field or has been standing to arms in the frontier garrisons beyond the Indus, on the Peshawar, Kohat, and Derajat borders. If it has been found necessary to place such forces in motion merely to secure our control over the Kingdom of Kabul or to reduce the frontier tribesmen to order, it may safely be assumed that a great war with a European Power in defence of India—or by which the peace of India may be threatened—will call for a much greater display of force. But, even assuming that only 60,000 men are employed—*i.e.*, a strength equivalent to four Divisions—the preceding calculation shows that some 200 British officers will be needed to enable Native Cavalry and Infantry regiments to take the field with but 10 and 12 officers apiece, and to fill the requisite staff appointments. And when the requirements of the departmental services are brought into the calculation, the position becomes one of still graver

moment and causes the most serious misgivings. In 1895, when only one Division was mobilised for the relief of Chitral, between 50 and 60 British regimental officers had to be withdrawn from their corps to meet the field requirements of the Commissariat-Transport Department alone, besides which several others were required in cantonments to replace Commissariat officers withdrawn for field service. How many, then, will be required for a force of four or more Divisions operating on several lines of communication? And, in addition to these, many others were then—and always will be—required for the purchase and hiring of transport animals; rest-camps also have to be opened at stages on the internal lines of railway, and require officers during heavy concentrations; and the depôts of regiments on service have to be organised, and reservists trained when called out.

Thus, on the mobilisation of a force of only 60,000 men for an important campaign, some 300 additional British officers will be required to place the force in the field in an effective condition, or, roundly, 75 officers per division; and the Native Infantry regiments will then only have one British officer to each company, while the British battalions brigaded with them will have three officers per company.

This estimate, which is based on existing regulations and on the experience of recent operations of portions of the Indian Army, affords much food for reflection, especially when it is remembered that this large demand for British officers will have to be met merely to place such a force in the field (under-officered as regards its Native troops), and that it is quite irrespective of the number of officers which will be required to make good the wastage of a campaign. Moreover, these officers will have to be found from the only source at present available, *viz.*, by withdrawing them from regiments left to garrison India; and a large proportion of those thus suddenly attached to regiments will necessarily be strangers to the men whom they will have to lead in action.

But this initial drain on the cadre of Indian officers will merely be in the form of a first instalment to remedy inherent defects in organisation; and the wastage in the field will still have to be provided for. The Germans, basing their enquiries on the experience of many wars and on the most reliable statistics, have found that the average losses in a year's campaign have been—

| | | | |
|-----------------|-----|-----|--------------|
| In the infantry | ... | ... | 40 per cent. |
| In the cavalry | ... | ... | 20 „ |
| In the train | ... | ... | 12 „ |

These are all-round percentages, including all forms of casualties, both in action and from sickness or disease, and will suffice for the purpose of forming a rough estimate of the probable number of British officers which will be required to repair the wastage of one year's serious campaigning.

In one Division there will probably be, as shown above 12 or 13 staff officers of the Indian Service; besides 96 combatant British officers in the eight Native Infantry regiments,* and 30 combatant British officers for the three Native Cavalry regiments. Applying the German percentages, it will be found that at the end of the first year of the campaign the following number of British officers will be needed to replace casualties in the Division :—

| | | | | |
|-----------------|-----|-------|-----|----|
| Staff (say) | ... | .. | .. | 2 |
| Native Infantry | ... | ... | ... | 38 |
| Native Cavalry | ... | ... | ... | 6 |
| | | | — | |
| | | Total | ... | 46 |
| | | | — | |

And when the requirements of the various departments are taken into consideration, the number will be about 50 per Division. Thus, for a force of even 60,000 men in a great war, some 200 British officers will be required annually to repair wastage; and at the end of the first year of the war the total demand for officers for such a force will have reached the high figure of about 500, *viz.*, 300 to place the force in the field and 200 more replace casualties.

These figures then, though they are only approximate, give some idea of the strength of the reserve of officers which is needed for the Indian Army; and this brings us to the second point referred to above, *viz.*, the circumstances under which the military services of reserve officers will be needed, and the probable condition of the country at the time.

Conditions governing the active military employment of reserve officers.

Although the war complement of British officers of Native regiments is greater than the peace establishment, such regiments have hitherto gone on service without the extra officers having been added. No inconvenience has resulted, and the reasons for adapting this course are obvious. "Leading" against ill-armed tribesmen, who have been able to inflict but trifling damage at a distance and who have rarely succeeded in getting to close quarters, though always important, has not had the same significance as it must have when troops

* Including the Pioneer regiment.

are opposed to their equals in discipline and armament ; casualties have been few in number ; and the "irregular" system of officering regiments has been well adapted to this class of warfare—being sufficient and economical. Nor does there appear to be any good reason for changing the system so long as similar conditions obtain ; and it is only when our Indian troops may have to face the conditions of a modern battle, when heavy losses are to be expected, and when the best leading will be essential to success, that the number of regimental officers must be increased and maintained. So that the reserve of officers will primarily be required whenever India may become involved in a serious war with a European Power, or against an enemy disciplined and armed on modern principles. In such an eventuality—that is, when a reserve of officers will be really needed—it is to be expected that the conditions of the conflict will create a certain amount of political excitement, which may give rise to an under-current of unrest and, possibly, openly displayed disaffection ; and the problem of *internal* security will then acquire the same prominence it had in the days immediately after the Mutiny, but will have superadded to it the greater problem of securing peace and safety in our dominions by defeating the external foe. Both problems will have to be solved : the latter by the efficiency of our armies in the field ; and the former, not only by means of garrisons which will necessarily be more or less depleted, but by the quality of the administration. And the quality of the administration will just as much depend on the number and class of the civil executive officers as the efficiency of the army in the field will depend on the number and capacity of its leaders. In attempting, therefore, to formulate conditions for the formation of a reliable reserve of officers, it will be necessary to provide that such reserve shall be available without detracting from the stability of the internal administration of the country at a time when unrest and popular excitement may especially be anticipated.

Two main conditions for a scheme of reserve officers.

We thus arrive at two main conditions on which any scheme for a reserve of officers must rest, *viz.*—

- (i) it must be sufficient in numbers—the preceding examination having shown that, even with the present insufficient war establishment of British officers, about 500 additional officers will be needed to place a force of about 60,000 men in the

field for a great war and to maintain it there without deterioration for one year; and

- (ii) it must not contain within its composition any individuals who cannot safely and conveniently be withdrawn from their normal duties at a time of disturbance or political ferment.

Three sources for a reserve, and three necessary qualifications.

As it has been shown that the Native Army itself cannot at present suitably provide sufficient officers for the wants of a force of even 60,000 men for a year's serious campaigning without dangerously denuding the corps left in garrisons, until it is in a position to do so its reserve can only be obtained from one or more of three sources, *viz.*—

- (i) Civilians.
- (ii) Retired honorary commissioned officers.*
- (iii) Help from the British Army.

In any case three qualifications will be required: *First*, as such officers will have to lead—or, in departments, control—natives, they must have a knowledge, preferably, of the dialects spoken by the men with whom they will be associated, or, failing that, of Hindustani. *Second*, they should understand the native character, and have at least some knowledge of race distinctions and of the caste prejudices and customs of the people. *Third*, those required for regimental duties should know something of drill.

Let us, therefore, examine these sources of supply and see to what extent they will provide suitable material for a reserve of officers, always bearing in mind the conditions and qualifications mentioned above.

Divisions of the "Civilian" class.

Under the first class—Civilians—may be included:—

- (a) Non-military men in England and the colonies.
- (b) Members of the Indian Civil Service—covenanted and uncovenanted.
- (c) Officers of the Indian Police.
- (d) Members of the various other Government Civil Departments in India, *e.g.*, Telegraphs, Postal, Public Works, Forests, Opium, Salt, etc.

* To this may be added retired military officers. But in Army Regulations, India, Volume I, Part I, Article 1344, it is ruled that "officers who entered the Staff Corps on or after the 9th January 1892 and who may retire on pension are liable to recall to duty in India under the terms of India Army Circulars, clause 99 of 1893." All these officers are, therefore, liable for service in future; and those not included may be omitted from consideration, except such few as may be found willing to volunteer for the reserve.

- (e) Private individuals in India, such as merchants, barristers and lawyers, planters, members of private railway or other engineering concerns, etc.

Non-military men in England and the Colonies.

It has frequently been said that a great national emergency will always produce sufficient volunteers to meet the crisis. It is a comfortable doctrine and one which affords a convenient apology for an insular habit of dealing with military matters; but, whatever truth there may be in it so far as Great Britain itself is concerned, Great Britain, and the Indian Empire in particular, must be upheld on different principles. As regards British officers for the native portion of the Indian Army, volunteers from the non-military population at home and in the colonies must be rejected as a *direct* source of assistance to the scheme under consideration, because, as a class, they would know nothing of the language or customs of the men with whom they would have to deal and thus would not be qualified to lead or control them, and, excepting those from the militia, yeomanry, or volunteers, they would also be ignorant of drill. In spite of these defects, however, this class is of the greatest importance, as forming what is the final reserve in a national crisis; and a suggestion is made further on, which, if adopted, will permit of a full employment of recruits from England as a *indirect* source of assistance to the Native Army.

Members of the Indian Civil Service.

Turning next to India itself, as the immediate field from which civilians can be obtained for the reserve, we are at once confronted by the second condition stated on page 280, *viz.*, such a reserve must not contain within its composition any individuals who cannot safely and conveniently be withdrawn from their normal duties at a time of disturbance or political ferment. Among civilians in India, who are the individuals who most prominently come under this category? Those who have not forgotten the history of the Mutiny and understand how a handful of Europeans govern an Empire will no doubt reply: "The members of the Indian Civil Service, whether civilians or military-civilians." At such a time of unrest, and possibly openly displayed disaffection, the tranquillity of provinces, and possibly the stability of our rule, will, as previously mentioned, largely depend on the character and efficiency of the executive civil officers. They will be the individuals whose discretion may stem a rising flood of revolt

and who will have to give the first warnings which will enable the storm to be weathered. If India is ever seriously threatened from without, the possible existence—however remote—of such conditions of internal excitement cannot be neglected. Internal disorder at such a time might hamper and even cripple the action of the armies in the field; and the civil officer who is trained to govern the people and to detect the first symptoms of discontent will then be far more profitably employed in performing his legitimate functions than in taking up unfamiliar and subordinate duties in the field. It may be said that the establishment of the Indian Civil Service provides for absentees, and that, on an emergency, those on leave, etc., would be recalled, thus giving a surplus which might be utilised. But against such argument it has to be remembered that in such a crisis the civil executive may require strengthening as well as the Army. Therefore, any such surplus would better be treated as a reserve of strength for the civil administration in time of need than as a reserve for military purposes.

Hence, it is considered that members of the Indian Civil Service should not be utilised or accepted in the cadre of a reserve of officers, as they would be a fictitious and unreliable addition to the military resources of the country. In a petty or even considerable emergency, such as a frontier expedition or a war against unaided Afghanistan, other more suitable arrangements could no doubt be made for providing sufficient British officers without weakening the civil administrative machinery; while in a great national emergency, *e.g.*, invasion, civil officers, as shown above, must remain at their posts, and even if some few could be spared to temporarily take up arms, they would be more profitably employed in local volunteer corps, where they would add to the internal defence of the country while still being in a position to perform their normal and more important duties when required.

Officers of the Indian Police.

In dealing with the third class of civilians, *viz.*, officers of the Indian Police, it will be seen that similar conditions obtain, though in a lesser degree. Before the Mutiny the Native Army was largely employed on police duties; but in the subsequent re-organisation a separate police service was established, which, in addition to what may be termed its detective functions, acts as an immediate support to the authority of the civil officers, the aid of troops being only called out in cases of serious riot or disorder. The formation

of this police force permitted a considerable reduction to be made in the former strength of the Native Army, and the police have thus acquired an important position in regard to the maintenance of order, not only in cases of petty disturbance, but as the first means for checking more serious risings—especially in districts far removed from military stations—and to give time for the concentration of troops if the movement assumes a serious form. If the maintenance of such a force is necessary in times of profound peace, to relieve the army of frequent calls on its services and to prevent the undue dispersion of troops, it will—if capable of justifying its creation and existence—be of still greater value in a time of great emergency when fewer troops will be available in the country. That is, its efficiency will need to be greatest just at the time when the Army will most require additional British officers. And here, again, as any one who has seen Indian Police in a city riot well knows, efficiency, or even any resolute action at all, will depend on the British leader. For these reasons it is thought that police officers do not form a suitable class from which to create a first reserve of officers for the Army.

But though, as a general rule, it is not probable that the services of all police officers could be so utilised in the reserve, it seems desirable that Government should be in a position to employ them as officers with the regular army to such extent as circumstances may render necessary or expedient. Under the class "Civilians," the officer of the Indian Police seems to be best suited for such employment. He is obliged to know the common language spoken by the natives of his presidency or province, and in most cases has a colloquial knowledge of several dialects. Being daily brought into contact with all classes of natives he cannot fail to acquire a knowledge of their race distinctions, customs, and caste prejudices. He also knows something of drill. Thus, he possesses all three of the qualifications mentioned on page 280 and his use as a reserve officer is only limited by the condition that he may not generally be safely withdrawn from his normal duties in a time of great emergency. But at such a time it will be for Government to decide which is the more pressing need—the efficiency of the armies in the field, or the maintenance of the full number of police officers in any given area. If the former is all-important, and the crisis is sufficiently great, the latter must give way. Or, it may be, that certain portions of the police force may dissolve of their own initiative, or in the hour of trial prove unequal to their duties and be disbanded. Or again, to meet the necessities of the army, it may become

necessary to withdraw a few police officers from each Administration and to let their places be taken by probationers, so as to utilise resources which, in themselves, may not be suitable for the requirements of an army in the field. Under such circumstances police officers should be available for use as a final reserve for the regular army, and it appears desirable that, in the case of all future appointments to the police, liability to serve in the army on an emergency should be a condition of service; so that, according to the degree and conditions of each emergency, Government may be able to utilise their services to any extent that may be required—or not at all.

This may be considered a radical change affecting the freedom of the British subject, who has always resisted anything in the form of enforced liability for military service. But this suggestion has no such wide application. The freedom of the subject does not come into the question at all. Government offer certain appointments in a service which was formerly officered by military officers and performed by native troops of the regular army. One condition would be that in the event of a great emergency, of which Government would be the judge, members of this service would be liable for military duties as officers of the army under certain clearly defined conditions. Those who accepted appointments on these terms would know their liabilities, and those who objected to the conditions would seek some other profession. It would be a free contract with a free people.

And it does not seem likely that such a condition would reduce the number of recruits for the Indian Police, but on the other hand, if the conditions were suitable and their rank and status as reserve officers were fully recognised, it might even tend to attract more. A large number, if not the majority of the officers of this force, are sons of military officers and civil officials, who have failed for the army or other professions; and it is not likely that any large proportion would decline to enter the police because of the remote liability of having to serve in the profession which many hoped originally to belong to. Those who did object would probably not be very suitable leaders even for police in a village dispute, and would be well replaced by others of a better class.

In the existing regulations for the "Indian Army Reserve of Officers," police officers are apparently eligible for appointment to the reserve as coming under the category of "officials other than military officers in the service of the Government of India," provided they are "recommended

for a commission by the Local Government " and have obtained certificates of a prescribed degree of proficiency in drill, etc. The recommendation of the Local Government no doubt depends, *inter alia*, on the condition that the officers recommended can, at the time, be spared for employment in the reserve, as otherwise it is obvious that they would be of no use as an effective addition to the reserve. But though such officers may be available at one time, a few months—or even weeks—later, conditions may have changed in the districts to which they belong; or the officers themselves may have been transferred to other districts, from which it may not, at the time of emergency, be possible to withdraw them, while in other parts of the country there may then be others who may be available but who may not have volunteered for the reserve, or who, when volunteering, may not have been recommended as not being then available.

Thus, it does not seem possible to obtain a reliable reserve of officers from the Indian Police so long as their services are dependent solely on volunteering, as the extent to which officers may be available and the localities from which they can be withdrawn will depend on the degree of each emergency and the conditions of each province at the time, and will vary from month to month. If, however, all these officers were liable, under the conditions of their appointments, to service in the reserve, Government, in consultation with Local Administrations, could, on an emergency, utilise the services of any who could be spared, employing them either in military departments or with regiments from the Commands in which the officers had served—*e.g.*, a Punjab police officer might be attached to a Punjab regiment; a Bombay police officer to a Bombay regiment or to the Transport Department; so on.

In this way many officers, belonging to what is probably the most suitable class of non-military men, might be obtained for service with the Indian Army on an emergency; and this, therefore, is the course recommended for adoption *in the case of all future appointments* to the police, those now in the service being exempted from such liability, but being attracted to volunteer to the fullest possible extent.

Officers of other Civil Departments in India.

The fourth class of "Civilians" embraces officers of the various Civil Department which are concerned with the material progress of the country, but which—with the exception of the Railway and Telegraph Departments—are not absolutely essential for its preservation in times of great emergency. . At

such time, when war will be causing a great drain on the resources of the country, expenditure in these Civil Departments will be much reduced. With reduction in expenditure, reduced establishments will be possible; and these, therefore, are the departments to which it should be possible to look for appreciable assistance in the matter of reserve officers. But experience has shown that officers of these Government departments do not voluntarily come forward to join the reserve, and it is doubtful whether any considerable number will ever be found to volunteer for such service without pressure being brought to bear, directly or indirectly; so that it is again a matter for consideration whether—and, if so, to what extent—it would be desirable in their case to introduce any conditions of liability to military service in times of emergency.

The Telegraph Department will always be much effected in times of war or disturbance. A great additional strain, at such times, is always thrown on this department by the largely increased number of messages which pass over the wires throughout India; and the department also takes an important share in operations beyond the frontier in the rapid construction and maintenance of advanced lines from the bases to the armies in the field. This department, therefore, though civil in organisation, already has clearly defined military duties, which cannot be curtailed and by which it fully contributes its share to the military defence of India; and no advantage would be gained by rendering its officers liable for other military duties than the important ones they already perform so well.

The Postal Department, also, has to meet a heavy strain in time of war. Correspondence in the Military, Political, and Foreign Departments is much increased; and, in the field itself, field post offices have to be organised on the lines of communication and with the head-quarters of brigades and other units; so that this department also has its clearly defined rôle in time of war and contributes its important share to the success of military operations, and should not be compelled to accept other liabilities in connection with the efficiency of the army.

But in considering the case of the Public Works Department it is found that similar conditions do not obtain, except to some extent in the case of railways. As soon as war breaks out—even though it be a minor expedition—the silver shoe begins to pinch, and, to meet the increased military expenditure, all other outlay which is not immediately and urgently necessary has to be curtailed. The greater the war, the more as economy to be observed in civil departments, and of all

civil departments, the Public Works is the one which forms the most convenient safety-valve for regulating the fiscal machinery. On railways the establishments must be maintained—and, where the pressure of concentration is greatest, increased—while new lines for military purposes on, or beyond, the frontier may have to be constructed. But in the Irrigation and General Branches, work will be reduced according to the degree of financial strain created by the war. As public works decrease and demands from the front increase, Royal Engineers would first be withdrawn from the Department; but in a great war—*i.e.*, when a reserve of officers will be most needed—it is to be expected that all large and expensive works will come to a standstill and a large number of Civil Engineers will have little or no work to do. In other words, in proportion as the war expenditure increases, so will public works decrease; and hence, the greater the war and the greater the immediate necessity for a reserve of officers, the more will Civil Engineers be thrown out of work. With these conditions it seems particularly desirable that Government should be able to secure the services of these Civil Engineers in a reserve of officers, if possible by volunteering, but failing that by making it one of the conditions of all future appointments of Civil Engineers of the Imperial Service, especially those from Cooper's Hill College (Natives and Eurasians excepted), that they should join the reserve and be liable for military duty in times of emergency. As a voluntary reserve, if attainable, is to be preferred to a compulsory one, the attention of all Local Governments and Heads of Departments should first be drawn to the extreme necessity for gaining recruits, particularly from the Public Works Department; but if this fails to produce a sufficient number within a reasonably short space of time, the voluntary system should be abandoned and the alternative introduced, unless Government are prepared to pay for a large increase to the Staff Corps which will itself constitute a more efficient reserve.

Out of a batch of 50 students at Cooper's Hill, about 10 are annually appointed to the Indian Service, and it would probably not be difficult to get this small number of suitable candidates who would willingly accept the obligation to join the reserve, with its remote liability for military service, in return for an assured career. If they will not do so, it is obvious that they cannot be depended upon to *volunteer* for the reserve; and in such case this large class of Government officials must be excluded from any future schemes for a

reserve, and the necessity for forming a true reserve by increasing the Staff Corps cadre will be still further emphasized.

Cooper's Hill men are required to possess certain linguistic qualifications for departmental purposes, and thus, after a short residence in the country, will have sufficient knowledge of the language for the purpose in view. They also, by their daily work, acquire useful habits of controlling natives and organising labour; hence, they are particularly adapted for departmental work in the field, which is primarily dependent on organisation. But for regimental purposes they will generally be deficient in a knowledge of drill; and to acquire such knowledge it seems desirable that they should go through short courses.

It is, therefore, thought, if liability to service in the reserve be introduced, that on arrival in the country, they should be attached for a short training with an infantry regiment to learn drill with a company working independently or in battalion, much in the same way as young Indian Civilians have to go through a course of equitation. The limit of duration of such course might be at most two months; and, on passing, a donation of Rs. 100 might be paid as an incentive to good work and to cover additional expenses. For three years after so passing (which would be a condition of departmental promotion) they would be 2nd-Lieutenants in the reserve, and then would be promoted as Lieutenants if they show that they have kept up the knowledge gained. Before promotion to Executive Engineer, 3rd grade,* they would have to qualify for promotion to the rank of Captain, and before they have completed 20 years' service in the department* they would similarly have to qualify for the rank of Major in the reserve; to permit of which they should be allowed two months' special leave in each case to be attached to Native Infantry regiments for the purpose†

It is estimated that each such reserve officer would, on an average, cost less than Rs. 4,000 *for the whole of his service*,‡—a very moderate outlay when compared with the cost of an officer of the regular army.

On being called to army service, these officers, in common with all other reserve officers from Government Departments, should receive the pay and allowances of their civil appointments at the time.

* See Public Works Departmental Code, Volume I, Appendix G. These periods correspond with those laid down in the table of relative ranks when employed in the field.

† A Royal Engineer officer in the Public or Military Works Department is allowed three months' special leave to qualify for promotion; so that two months' special leave for a Civil Engineer to qualify in drill does not seem excessive.

‡ See Table I.

This suggestion regarding liability to service in the reserve is at least worth a trial. Its effect would soon be seen, and if found to be unworkable, could be dropped ; and with its abandonment, following on that of the voluntary system, Government would know their position as regards one main source of recruitment for the reserve. If, on the other hand, the experiment succeeded—as it is believed it would—it might be extended to the Forest Department officers recruited in future from Cooper's Hill, and subsequently, if necessary, to the Opium and other smaller departments in this category ; but these latter (in common with the Provincial Service of the Public Works) might preferably be left to supply volunteers (if any will do so), as they are not entirely composed of classes which would be suitable, though a certain proportion could be accepted if willing to join.

“ Private Individuals ” in India.

Coming now to “ private individuals ” in India, it does not seem probable that much help will be obtained from this class. War brings in its train a dislocation of trade, and, at such a time especially, the heads and leading men of mercantile firms, even if otherwise suited for military service, cannot afford to leave their posts unless they are willing to risk loss and possible bankruptcy. In the case of their clerks and accountants, too, conditions exist which are not dissimilar to those which have been observed in connection with reservists at home. Employers of labour are disinclined to engage men who are liable to be removed at short notice ; and even if heads of firms in India were not to object to their assistants joining the reserve of officers, the young men themselves will necessarily see that by doing so they may seriously affect their careers. On being called out for army service, substitutes will take their places in the firms to which they belonged, and on their return they may find that their patriotism has checked or ruined their prospects. Barristers, lawyers, and doctors, also, cannot afford to risk the loss of their practices ; and the probable field of recruitment thus narrows itself into the indigo, tea, and coffee plantations in the country. Here again, the owners and well-paid managers of companies will not be attracted ; the best assistants, who see a chance of getting on, will hold back ; and the few volunteers will generally be assistants with no prospects, and what may be termed “ the young failures,”—not, as a rule, the class from which leaders in our great wars should be selected.

Under existing conditions, however, no possible source of recruitment should be neglected, and as many suitable private individuals as possible should be attracted on the present terms, but with increased facilities for entering the regular army through the reserve and by a wider recognition of the military rank and status pertaining to their appointments in the reserve.

Remarks on the conditions of service of reserve officers.

It is thought that more prominence should be attached to these two conditions in any future regulations for a reserve of officers which is dependent on the voluntary act of non-military men. For if a man is willing, without any retaining-fee, to bind himself to serve his country in its time of need, to the extent of risking or even laying down his life, he is surely worthy of the fullest public recognition of the title which marks his patriotism; and if he is actually called out to fulfil his engagement in a great emergency, he should, if he performs his duty well and is well reported on, be eligible for permanent employment in the army with which he so associated himself, as a right, and not as a favour to be granted "under special circumstances." In the case of "private individuals" it also seems desirable that some linguistic qualification should be prescribed, to ensure that those joining the reserve will be able to lead or control natives. Moreover, the rules regarding pay and allowances should provide that *civil officers of Government departments*, on being called to army service, will not lose—but, if possible, gain—pecuniarily, as, unless such provision be made, it is not to be expected that many such officers will volunteer to join the reserve;* and even if conditions of liability to service be introduced as suggested for certain departments, it should still be made clear that the call to military duties will not involve any loss of pay.

Three civil divisions of reserve proposed.

From the preceding examination of the various divisions of the "civilian" class it will be seen that it is not anticipated that a suitable and sufficient reserve will be obtained from this class so long as it is entirely dependent on volunteering, though a large body of reserve officers, divided into three

* The following is an example of what is meant:—

An Assistant Engineer, 1st grade, in the Public Works Department, serving as such with any army in the field would, under the provisions of Public Works Department Code, Volume I, Chapter I, paragraph 138, get 25 per cent. on his pay—i.e., Rs. 550 + Rs. 137-8-0 = Rs. 687-8-0—whereas if he were a Lieutenant in the Reserve and were called to military duty as a Wing Officer he would, under Rule 20 of the Regulations for the Indian Army Reserve of Officers, only get Rs. 225-12-0 + Rs. 100 = Rs. 325-12-0.

classes or divisions, could be secured if the obligation to join the reserve were made one of the conditions of future appointments in certain Government departments, as recommended above. The three divisions, and the probable order in which they would be called out, would be:—

- (i) Probably a small one—consisting of private individuals and officers *now* in the Public Works and other Civil Departments who *volunteer* for service in the reserve.

[As the second division got into working order and increased in size, this would decrease.]

- (ii) Officers joining the Imperial Service of the Public Works Department *in future*, who would be members of the reserve under the conditions of their appointment.

[The formation of this division would depend on whether the first division, above, were speedily augmented to a sufficient degree; but once formed, it would increase rapidly until it embraced the whole of the Imperial Public Works officers, and, if necessary and desirable, it might hereafter be expanded to include Forest officers appointed from Cooper's Hill, etc.]

- (iii) Officers of the Indian Police appointed in future.

They are defective for regimental purposes.

A reserve entirely formed on such a system would not, however, be completely satisfactory, as the officers would, owing to their knowledge of the language and habit of dealing with natives, be best suited for work in the Commissariat-Transport and other Departments, and although they would have a slight training in drill, they would not, as a class, be efficient substitutes for regimental officers with Native troops in the field. But it has been shown that reserve officers will primarily be required for regimental duties, and what seems to be wanted, therefore, is a first line of reserve which will afford material assistance to the Native *regiments* of the Indian Army and which should, therefore, be composed of *regimental* officers. Such a first line of reserve can, it is thought, be obtained from the British Army in India.

Increase in the officers of the Commissariat-Transport Department, and a departmental reserve required.

As has already been mentioned, between 50 and 60 regimental officers were employed in the field on Commissariat and Transport duties during the operations of the Chitral Relief Force in 1895, besides which others were required to replace Commissariat officers withdrawn for service from

such time, when war will be causing a great drain on the resources of the country, expenditure in these Civil Departments will be much reduced. With reduction in expenditure, reduced establishments will be possible; and these, therefore, are the departments to which it should be possible to look for appreciable assistance in the matter of reserve officers. But experience has shown that officers of these Government departments do not voluntarily come forward to join the reserve, and it is doubtful whether any considerable number will ever be found to volunteer for such service without pressure being brought to bear, directly or indirectly; so that it is again a matter for consideration whether—and, if so, to what extent—it would be desirable in their case to introduce any conditions of liability to military service in times of emergency.

The Telegraph Department will always be much affected in times of war or disturbance. A great additional strain, at such times, is always thrown on this department by the largely increased number of messages which pass over the wires throughout India; and the department also takes an important share in operations beyond the frontier in the rapid construction and maintenance of advanced lines from the bases to the armies in the field. This department, therefore, though civil in organisation, already has clearly defined military duties which cannot be curtailed and by which it fully contributes its share to the military defence of India; and no advantage would be gained by rendering its officers liable for other military duties than the important ones they already perform so well.

The Postal Department, also, has to meet a heavy strain in time of war. Correspondence in the Military, Political, and Foreign Departments is much increased; and, in the field itself, field post offices have to be organised on the lines of communication and with the head-quarters of brigades and other units, so that this department also has its clearly defined rôle in time of war and contributes its important share to the success of military operations, and should not be compelled to accept other liabilities in connection with the efficiency of the army.

But in considering the case of the Public Works Department it is found that similar conditions do not obtain, except to some extent in the case of railways. As soon as war breaks out—even though it be a minor expedition—the silver shoe begins to pinch, and, to meet the increased military expenditure, all other outlay which is not immediately and urgently necessary has to be curtailed. The greater the war, the more as economy to be observed in civil departments, and of all

civil departments, the Public Works is the one which forms the most convenient safety-valve for regulating the fiscal machinery. On railways the establishments must be maintained—and, where the pressure of concentration is greatest, increased—while new lines for military purposes on, or beyond, the frontier may have to be constructed. But in the Irrigation and General Branches, work will be reduced according to the degree of financial strain created by the war. As public works decrease and demands from the front increase, Royal Engineers would first be withdrawn from the Department; but in a great war—*i.e.*, when a reserve of officers will be most needed—it is to be expected that all large and expensive works will come to a standstill and a large number of Civil Engineers will have little or no work to do. In other words, in proportion as the war expenditure increases, so will public works decrease; and hence, the greater the war and the greater the immediate necessity for a reserve of officers, the more will Civil Engineers be thrown out of work. With these conditions it seems particularly desirable that Government should be able to secure the services of these Civil Engineers in a reserve of officers, if possible by volunteering, but failing that by making it one of the conditions of all future appointments of Civil Engineers of the Imperial Service, especially those from Cooper's Hill College (Natives and Eurasians excepted), that they should join the reserve and be liable for military duty in times of emergency. As a voluntary reserve, if attainable, is to be preferred to a compulsory one, the attention of all Local Governments and Heads of Departments should first be drawn to the extreme necessity for gaining recruits, particularly from the Public Works Department; but if this fails to produce a sufficient number within a reasonably short space of time, the voluntary system should be abandoned and the alternative introduced, unless Government are prepared to pay for a large increase to the Staff Corps which will itself constitute a more efficient reserve.

Out of a batch of 50 students at Cooper's Hill, about 10 are annually appointed to the Indian Service, and it would probably not be difficult to get this small number of suitable candidates who would willingly accept the obligation to join the reserve, with its remote liability for military service, in return for an assured career. If they will not do so, it is obvious that they cannot be depended upon to *volunteer* for the reserve; and in such case this large class of Government officials must be excluded from any future schemes for a

reserve, and the necessity for forming a true reserve by increasing the Staff Corps cadre will be still further emphasized.

Cooper's Hill men are required to possess certain linguistic qualifications for departmental purposes, and thus, after a short residence in the country, will have sufficient knowledge of the language for the purpose in view. They also, by their daily work, acquire useful habits of controlling natives and organising labour; hence, they are particularly adapted for departmental work in the field, which is primarily dependent on organisation. But for regimental purposes they will generally be deficient in a knowledge of drill; and to acquire such knowledge it seems desirable that they should go through short courses.

It is, therefore, thought, if liability to service in the reserve be introduced, that on arrival in the country, they should be attached for a short training with an infantry regiment to learn drill with a company working independently or in battalions, much in the same way as young Indian Civilians have to go through a course of equitation. The limit of duration of such a course might be at most two months; and, on passing, a donation of Rs. 100 might be paid as an incentive to good work and to cover additional expenses. For three years after so passing (which would be a condition of departmental promotion) they would be 2nd-Lieutenants in the reserve, and they would be promoted as Lieutenants if they show that they have kept up the knowledge gained. Before promotion to Executive Engineer, 3rd grade,* they would have to qualify for promotion to the rank of Captain, and before they have completed 20 years' service in the department* they would similarly have to qualify for the rank of Major in the reserve; to permit of which they should be allowed two months' special leave in each year to be attached to Native Infantry regiments for the purpose.

It is estimated that each such reserve officer would, on an average, cost less than Rs. 4,000 *for the whole of his service*;—a very moderate outlay when compared with the cost of an officer of the regular army.

On being called to army service these officers, in common with all other reserve officers from Government Departments, should receive the pay and allowances of their civil appointments at the time.

* See Public Works Department, *Manual of the Indian Civil Service*, Part I, Chapter I, Section 1, and Part II, Chapter I, Section 1.

* A Public Engineer, 3rd grade, in the Public Works Department would, after three years' service, be eligible for promotion to the rank of Captain in the Indian Army, and after 20 years' service to the rank of Major.

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This suggestion regarding liability to service in the reserve is at least worth a trial. Its effect would soon be seen, and if found to be unworkable, could be dropped; and with its abandonment, following on that of the voluntary system, Government would know their position as regards one main source of recruitment for the reserve. If, on the other hand, the experiment succeeded—as it is believed it would—it might be extended to the Forest Department officers recruited in future from Cooper's Hill, and subsequently, if necessary, to the Opium and other smaller departments in this category; but these latter (in common with the Provincial Service of the Public Works) might preferably be left to supply volunteers (if any will do so), as they are not entirely composed of classes which would be suitable, though a certain proportion could be accepted if willing to join.

“ Private Individuals ” in India.

Coming now to “ private individuals ” in India, it does not seem probable that much help will be obtained from this class. War brings in its train a dislocation of trade, and, at such a time especially, the heads and leading men of mercantile firms, even if otherwise suited for military service, cannot afford to leave their posts unless they are willing to risk loss and possible bankruptcy. In the case of their clerks and accountants, too, conditions exist which are not dissimilar to those which have been observed in connection with reservists at home. Employers of labour are disinclined to engage men who are liable to be removed at short notice; and even if heads of firms in India were not to object to their assistants joining the reserve of officers, the young men themselves will necessarily see that by doing so they may seriously affect their careers. On being called out for army service, substitutes will take their places in the firms to which they belonged, and on their return they may find that their patriotism has checked or ruined their prospects. Barristers, lawyers, and doctors, also, cannot afford to risk the loss of their practices; and the probable field of recruitment thus narrows itself into the indigo, tea, and coffee plantations in the country. Here again, the owners and well-paid managers of companies will not be attracted; the best assistants, who see a chance of getting on, will hold back; and the few volunteers will generally be assistants with no prospects, and what may be termed “ the young failures,”—not, as a rule, the class from which leaders in our great wars should be selected.

Under existing conditions, however, no possible source of recruitment should be neglected, and as many suitable private individuals as possible should be attracted on the present terms, but with increased facilities for entering the regular army through the reserve and by a wider recognition of the military rank and status pertaining to their appointments in the reserve.

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It is thought that more prominence should be attached to these two conditions in any future regulations for a reserve of officers which is dependent on the voluntary act of non-military men. For if a man is willing, without any retaining fee, to bind himself to serve his country in its time of need, to the extent of risking or even laying down his life, he is surely worthy of the fullest public recognition of the title which marks his patriotism; and if he is actually called out to fulfil his engagement in a great emergency, he should, if he performs his duty well and is well reported on, be eligible for permanent employment in the army with which he so associated himself, as a right, and not as a favour to be granted "under special circumstances." In the case of "private individuals" it also seems desirable that some linguistic qualification should be prescribed, to ensure that those joining the reserve will be able to lead or control natives. Moreover, the rules regarding pay and allowances should provide that *civil officers of Government departments*, on being called to army service, will not lose—but, if possible, gain—pecuniarily, as, unless such provision be made, it is not to be expected that many such officers will volunteer to join the reserve;* and even if conditions of liability to service be introduced as suggested for certain departments, it should still be made clear that the call to military duties will not involve any loss of pay.

Three civil divisions of reserve proposed.

From the preceding examination of the various divisions of the "civilian" class it will be seen that it is not anticipated that a suitable and sufficient reserve will be obtained from this class so long as it is entirely dependent on volunteering, though a large body of reserve officers, divided into three

*The following is an example of what is meant—

An Assistant Engineer, 1st grade, in the Public Works Department, Mysore, is associated with an army in the 1st World War, under the provisions of Public Works Department Circular No. 1, 1914, and is consequently getting more than his ordinary pay—Rs. 350 + Rs. 150 + Rs. 80 = Rs. 580. If he were to volunteer to join the Reserve, and were called to military duty as a Wing Officer, he would lose Rs. 50 of the Rs. 150 due for the Indian Army Reserve of Officers, by getting Rs. 225 + Rs. 120 + Rs. 25 + Rs. 25.

classes or divisions, could be secured if the obligation to join the reserve were made one of the conditions of future appointments in certain Government departments, as recommended above. The three divisions, and the probable order in which they would be called out, would be:—

- (i) Probably a small one—consisting of private individuals and officers *now* in the Public Works and other Civil Departments who *volunteer* for service in the reserve.

[As the second division got into working order and increased in size, this would decrease.]

- (ii) Officers joining the Imperial Service of the Public Works Department *in future*, who would be members of the reserve under the conditions of their appointment.

[The formation of this division would depend on whether the first division, above, were speedily augmented to a sufficient degree; but once formed, it would increase rapidly until it embraced the whole of the Imperial Public Works officers, and, if necessary and desirable, it might hereafter be expanded to include Forest officers appointed from Cooper's Hill, etc.]

- (iii) Officers of the Indian Police appointed in future.

They are defective for regimental purposes.

A reserve entirely formed on such a system would not, however, be completely satisfactory, as the officers would, owing to their knowledge of the language and habit of dealing with natives, be best suited for work in the Commissariat-Transport and other Departments, and although they would have a slight training in drill, they would not, as a class, be efficient substitutes for regimental officers with Native troops in the field. But it has been shown that reserve officers will primarily be required for regimental duties, and what seems to be wanted, therefore, is a first line of reserve which will afford material assistance to the Native *regiments* of the Indian Army and which should, therefore, be composed of *regimental* officers. Such a first line of reserve can, it is thought, be obtained from the British Army in India.

Increase in the officers of the Commissariat-Transport Department, and a departmental reserve required.

As has already been mentioned, between 50 and 60 regimental officers were employed in the field on Commissariat and Transport duties during the operations of the Chitral Relief Force in 1895, besides which others were required to replace Commissariat officers withdrawn for service from

cantonments. During the recent disturbances on the frontier similar conditions have again been observed, and it is believed that about 100 regimental officers have been employed on Commissariat-Transport duties, either in the field, or in purchasing and hiring transport, or for the replacement of departmental officers in cantonments. The reason for this is clear. The greatest money-spending department of the Indian Army is, like that army itself, grievously under-officered; with the result that, while on the one hand the necessity for more regimental officers is universally acknowledged and attempts are being made to form a suitable reserve, on the other hand regimental officers are withdrawn from their regiments for departmental services. This seems to point to a defect which strikes at the root of the matter under consideration. The first remedy would appear to be a substantial increase in the number of officers in the Commissariat-Transport Department, such as will render it independent of regimental assistance; and then, having suitably increased the permanent establishment of officers in the department, to create a departmental reserve by securing the services of retired honorary commissioned and warrant officers of the department for duty in cantonments in India on an emergency, so as to release effective officers and subordinates for service in the field. As many as possible of those now retired should be induced to volunteer for such reserve, and it should be made a condition of all future appointments of subordinates to the department that they will be liable, on an emergency, to recall for duty, as is the case with Staff Corps officers appointed on or after the 9th January 1892. Such a reserve, under present conditions, would probably not suffice to meet the expansion of the department in time of war; but with a suitable increase in the permanent establishment of the officers in the department and assistance from civilians in the reserve of officers (who are better suited for such work than for regimental duty) the heavy drain on regimental officers for Commissariat and Transport duties in time of war would in course of time be much reduced and ultimately disappear.

A first regimental reserve of officers from the British Service.

In order to provide a reserve of qualified officers for transport duties in the field, a British officer is annually detailed from each corps to undergo a course of six weeks' training at the district training depôt and a fortnight's

subsequent practical instruction.* But the necessity for a reserve of regimental officers for the Native Army is no less important than such a reserve of Transport officers ; and if officers of British regiments can be spared, and are trained, to form a transport reserve, it seems equally desirable that they should also be trained to form an effective reserve of regimental officers for Native Corps.

A considerable number of British Infantry battalions and some British Cavalry regiments will remain in garrisons in time of war, and each of these will be able to spare several British officers, either for transport duties as at present arranged, or preferably for regimental duties with Native regiments, the places of officers so transferred being filled, if necessary, by new appointments from home and some promotions from the ranks. But such officers, to be thoroughly efficient in leading Native troops, would require to speak the language and understand the caste-prejudices, customs, and habits of the men they would have to lead. Hence, it seems desirable that courses should be instituted on the lines of the present transport classes to train young officers of British regiments in matters connected with the interior economy, etc., of Native corps. The first requirement is a fair knowledge of Hindustani. Therefore, before officers could go through such a course, they should have passed the Lower Standard and be able to understand and make themselves understood to natives. Having this qualification, Captains and Subalterns—especially the latter—to the extent of one or two annually from each British regiment, might be attached for two or three months to a Native Cavalry or Infantry regiment in their own station or district, or at some prescribed centre, to lead the men, to learn the customs of the various classes of men enlisted, and to study the organisation and interior economy of a Native regiment ; and at the expiration of this time they would be examined to show that they, by the knowledge they had acquired, were perfectly competent to act as squadron or wing officers with a Native regiment in the field. When passed, they would be shown in the Army List as having qualified for duty with a Native regiment (a note being added to show with what class of regiment they had qualified), and they would be eligible for such duty in the event of war. The centres at which these officers would be trained would be chosen with regard to probable requirements. In a serious war Native troops of the more warlike races in the north would probably be more largely employed in the field than those from

* *Vide Army Regulations, India, Volume V, Section XII, paragraph 1781.*

central and southern areas ; hence, it would be better that the majority of such officers should be trained in the Punjab and Bengal Commands, or with regiments recruited from northern or frontier races. During the course they would attend all parades and orderly-room, study the interior economy of the regiment, become acquainted with the Indian Articles of War, pick up a knowledge of the various races and sects enlisted, their customs, prejudices, and habits, and generally qualify themselves for duty in a Native regiment.

Officers so trained would not be withdrawn from British regiments which were themselves detailed for mobilisation, as such regiments would require their full complement ; but they would be taken from regiments left in India for internal defence. There are 52 battalions of British Infantry now on the Indian Establishment, and even if all but 20 were employed in the field, each of the 20 doing garrison duty would probably be able to spare six or eight officers without endangering their efficiency. And similarly as regards cavalry. They would look for their resources and replacements to England ; and Native regiments in the field would thus receive officers who understand the language and are accustomed to their ways, instead of getting raw youngsters from home, who, though they might soon prove efficient in a British regiment, would be of little use with sepoys.

Let us consider the case in which the Indian Army may be involved in a struggle for the defence of India—the case for which that army now exists. Every available regiment will have to be placed in the field, and two distinct demands for officers will have to be met—*firstly*, to complete Native regiments, and *secondly*, to help the Commissariat-Transport Department to do what it cannot at present do by itself. The war progresses ; great actions are fought ; casualties are heavy ; and British officers must be provided to lead our sepoys and sowars. We would then have to turn to the only two sources from which they could be supplied, if British Corps are not to assist, *viz.*, to the reserve composed of civilians, and to recruits from England, the available officers in the Native Army having been practically used up in the first instance to complete regiments going to the front by denuding those left behind.

Now, it is evident that the recruits from home—consisting of large batches pushed quickly through Sandhurst, or officers granted direct commissions, or from the reserve of officers at home—would be of little use in Native regiments, as they would not know a word of the language, though they would soon become excellent officers in British Corps ; and civilians from the reserve of officers out here would be better

employed in releasing regimental officers from the transport, etc., than in joining regiments themselves while regimental officers were relegated to departmental duty. Hence, if six or eight officers in each British regiment were trained in leading Native troops and in the duties of Native corps, there would be a considerable trained reserve to replace casualties in Native regiments, well suited to the requirements of the case, and more indispensable for that purpose than for departmental work which could satisfactorily be performed by civilians from the Indian Reserve.

The suggestion merely affords means for utilising the resources of England and the Colonies—which, after all, is the final reserve—in a convenient way, *vis.*, by getting a large number of young officers from home, but, instead of bringing them directly into Native regiments where they would be of little use for some time, they would join British corps in replacement of others who can speak the language and have been trained in duties with Native regiments and in the knowledge of the caste-prejudices, customs, etc., of the various classes of sepoy.

To make this system a living reality and to induce officers to qualify themselves, a few who are so qualified should be attached to Native regiments on service whenever an opportunity occurs; and it might also be ruled that officers who were called out to do duty with Native regiments in the field would, if well reported on, be eligible for transfer to the Indian Staff Corps. With these conditions, it is believed that such a system would be most popular. It is a common saying that passing the transport class affords the best means of getting on service, and the last Quarterly Army List shows that 167 officers of the British Service have qualified for employment in the Transport Branch of the Commissariat Department. If then it became known that qualifying for regimental duty with Native regiments would also give an opening for service *as regimental officers instead of as transport assistants*, a large number of officers would qualify themselves for enrolment in what would really be a first regimental reserve of officers for the Native Army. And the condition of eligibility for admission to the Staff Corps, after employment with a Native regiment in the field also seems advisable, as there are many young officers in the British Service who originally wished to get into the Staff Corps, but failed to do so, while others, through circumstances, may later wish for an opportunity to join the Indian Service. These then would be attracted. If they were called out to do duty in the field with

a Native corps and were well reported on, they would have passed a fair probation for admission to the Staff Corps; and, if not so employed, they would continue with their British regiments and lose nothing. Such a system would thus offer attractions to the officer who has no wish to permanently leave his British regiment, but would qualify himself for the chance of employment in the field which he otherwise may not get, and also as an indirect means of admission to the Staff Corps; while it would in itself create a convenient and efficient first-line reserve of regimental officers for the Native Army, which would enable the resources of England and the Colonies to be utilised in a suitable and effective manner.

It is true that this scheme has the defect that these officers would be strangers to their men. But this is a defect which is inherent in all schemes for a reserve and can only be got rid of by adding more officers permanently to each Native regiment. It has, however, the advantage that the officers will be able to speak the language, will know the duties of squadron or wing officers, and will thoroughly understand the ways of a Native regiment and the habits of the men; and they will thus be better able to act as leaders than if they were suddenly attached without any such training at all.

Reserve for Pioneer regiments.

In addition to the above method of creating a first reserve of regimental officers for the Native Army, further assistance might be obtained by employing Royal Engineer officers with Pioneer regiments in the field. There are seven Pioneer regiments in India, one or other of which is always being employed beyond the border, and in a serious war they would probably all be required. When sent on service for an important campaign, each regiment has to have four more British officers added to its establishment; and if two battalions from any group are sent into the field, the one remaining behind cannot meet their full demand for officers, who have, therefore, to be detailed from some Native Infantry regiment. (This will always be the case with the 28th Bombay Pioneers.) This, therefore, seems to be a case in which the drain on the Native Army might be somewhat reduced, and the efficiency of Pioneer regiments, as such, improved, by utilising the services of young Royal Engineer officers. Such a course would not be necessary or desirable in small campaigns; but in a serious war, when the establishment of British officers in Pioneer regiments has to be increased and numerous casualties replaced, it would be well

to provide the additional officers from Royal Engineers instead of withdrawing officers from Native Infantry regiments for the purpose. The officers so attached should, if possible, have passed the Higher Standard, and would preferably be subalterns, who would join as wing officers and thus be less liable to interfere with inter-regimental promotion. At the conclusion of the campaign they would revert to their normal duties, the vacancies being filled up from the Staff Corps under the present system. By their training they would be able to add to the utility of the regiments, and in this way they would form another small reserve of strength for the Native Army.

Additional Remarks.

In dealing with this question of a reserve of officers, several other schemes and possible sources of assistance have also been considered, but only three call for a few remarks. They are :—

- (i) Whether native gentlemen of position should be given a wider field of employment as officers in the Native Army.
- (ii) Whether commissions should, on an emergency, be offered to selected non-commissioned officers of British Corps, in order that they may form an additional source of reserve for the Native Army.
- (iii) Employing Volunteer officers in the reserve.

The first has been rejected, because, whatever may be the case in years to come, the time is not yet ripe for introducing a change which might produce momentous, and even disastrous consequences ; and because it is believed that the best native leading cannot take the place of leading by British officers, which alone will enable the Native Army to successfully perform its part in the defence of the Empire.

As regards the second point, such promotions would no doubt be made in a time of emergency and would be of material *indirect* assistance to the Native Army. But non-commissioned officers so promoted would, as a rule, be better employed in British Corps to take the place of young officers trained in the duties of Native regiments, instead of being themselves transferred on promotion to the Native Army. A knowledge of Hindustani cannot be made a condition of promotion from the ranks ; hence, there would be no guarantee that such men would be able to make themselves understood to natives. It would not be possible to train them beforehand in the duties of squadron or wing officers as has been proposed (and seems desirable) in the case of young officers of British regiments. Moreover, it

is not to be expected that all would, by their previous training, even make good Transport officers. And finally natives, who are particularly quick in detecting the difference between class and class and who have a great belief in *izzat*, would more readily follow the lead of a young officer fresh from school than one who they knew had just left the ranks. Thus, officers promoted from the ranks belong to the same category as other replacements and reserves for *British Corps*, and do not directly add to the reserve the Native Army, though they will help the Native Army in proportion as they will set free other officers better qualified for the duties.

As regards volunteers, those who are not military men belong to one or other of the various classes of " Civilians " already dealt with ; and, as liability to army service cannot—or should not—be made a condition of joining the volunteers, the extent to which they can suitably be employed in the reserve will depend on the conditions governing their civil status, irrespective of the fact of their being volunteers.

In this paper all reference to the Medical and Veterinary Departments has been omitted, as these may conveniently and suitably continue to find their first reserves in the civil branches of the departments, falling back on recruits from home as their final reserves. For neither of them can any material assistance be expected from the few private practitioners in India.

Summary and conclusion.

The following is a brief summary of the suggestions put forward above to obtain an efficient reserve of officers for the Indian Army :—

- (i) To secure a first regimental reserve for the Native Army and to tap the resources of England and the Colonies in a convenient and effective way, young officers of British cavalry and infantry regiments in India should be trained in the duties of squadron and wing officers with Native corps. This is especially desirable for infantry.
- (ii) In a serious war Pioneer regiments should receive their additional British officers from the Royal Engineers (subalterns only) ; and casualties should be replaced from the same source. For minor campaigns, this would not be necessary.
- (iii) A departmental reserve should be formed for the Commissariat-Transport Department by securing the services of retired honorary commissioned and warrant officers.

- (iv) Civilians now in Government service (members of the Indian Civil Service excepted), retired military officers who are not liable to recall, and private individuals should be attracted to volunteer for the reserve under the present rules, excepting that—
- (a) a language qualification should be prescribed in the case of private individuals ;
 - (b) their rank and status as reserve officers should be more fully and publicly recognised ;
 - (c) there should be greater facilities for entering the regular army from the reserve, after being called out ; and
 - (d) officers of Government Civil Departments, when called to army service, should not receive less than the pay of their civil appointments at the time.
- (v) Unless the above class (iv) is largely and sufficiently augmented within a reasonably short space of time by volunteers from Government Civil Departments (especially the Public Works) and after the necessity for gaining recruits has been impressed on Local Governments and Heads of Departments, it should be made a condition of future appointments to the Imperial Public Works, especially from Cooper's Hills (Native and Eurasians excepted) that they should join the reserve. If required, similar conditions might also be attached to all future appointments to the Forest Department from Cooper's Hill, etc.
- (vi) All officers appointed in future to the Indian Police to be members of the reserve.

The reserve would then be composed of five distinct divisions,* each being utilised as may be required and according to the degree and conditions of each emergency ; and in this way it is thought that a sufficient and reliable reserve can be obtained to provide for the first necessities of a great war.†

It is fully realised that the proposals here made are open to objections ; but it is doubtful if any solution will be free from defects, financial or otherwise, and it is necessary to

* The Royal Engineer reserve for Pioneer regiments will always be available without any classification.

† Table II shows the estimated number of reserve officers which it is expected would be obtained in 10 years' time if these proposals are adopted. The numbers would subsequently increase largely.

briefly summarise the reasons why these conclusions have been arrived at.

It is believed that the present establishment of British officers in the Indian Army is totally inadequate to enable the native elements of that army to satisfactorily meet their future responsibilities, and an attempt has been made to bring home the conviction that an early and substantial increase is necessary. Failing this, or assistance from the British Army, the supply of additional officers to meet the requirements of a great war can only be obtained from non-military sources, which are plentiful outside India, but in India are extremely limited and are largely restricted to officials of Government Civil Departments. Those outside India form a large and final reserve from which British regiments can be fed, but from ignorance of the language and habits of natives they are unsuited for the immediate requirements of the Native Army. Hence, it has been suggested that the British Army in India should provide trained officers as a first regimental reserve for the Native Army, the vacancies so caused being filled from the large available reserve in England and the Colonies.

To obtain recruits from the limited civil population in India, the matter rests on choice between a voluntary system pure and simple, or compulsory liability to service, or a combination of both. An entirely voluntary system will, it is believed, fail, unless tangible inducements are offered, involving considerable expenditure on retaining-fees; whereas liability to military service, judiciously regulated and restricted to suitable classes of Government officials, implies a very slight degree of hardship on individuals with trifling cost to Government. If a large expenditure be permissible, it will probably be best devoted to the addition of more officers to the Staff Corps. If not, then it is believed that a sufficient *voluntary* reserve of suitable officers will remain an object to be sought after, but always beyond the range of accomplished facts; and the choice thus remains of forming a reserve composed chiefly of certain Government officials engaged with liability to military service on an emergency, in addition to the few private individuals and others who may be induced to volunteer, or leaving the army to meet the crisis, when it arrives, with inadequate leadership. Hence, liability to military service on an emergency has been recommended in the case of certain Government officials who, in a crisis, could be best spared for such duties.

TABLE I.

Approximate cost of training Cooper's Hill Engineers as reserve officers.

I.—On their arrival in India—

| | | | | Rs. |
|--|-------|-----|-----|-------|
| Two months' course for ten Civil Engineers at Rs. 350* | | | | |
| each per mensem | ... | ... | ... | 7,000 |
| Donations on passing | ... | ... | ... | 1,000 |
| | | | | <hr/> |
| | Total | ... | | 8,000 |
| | | | | <hr/> |

II.—Second training for rank of Captain after about 10 years†—

| | | | |
|--|-----|-----|-------|
| Two months' special leave for nine‡ Civil Engineer at Rs. 550§ each per mensem | ... | ... | 9,900 |
|--|-----|-----|-------|

III.—Third training for rank of Major after about 19 years†—

| | | |
|---|-----|--------|
| Two months' special leave for eight Civil Engineers at Rs. 1,000¶ each per mensem | ... | 16,000 |
|---|-----|--------|

| | | |
|---|-----|-----------------|
| GRAND TOTAL | ... | 33,900 |
| Average cost per officer = $\frac{33,900}{9}$ | | =Rs. 3,766-10-8 |

* Pay of Assistant Engineer, 3rd grade.

† Vide Public Works Departmental Code, Volume I, Chapter I, paragraph 59.

‡ Allowing for casualties at the rate of 10 per cent.

§ Pay of Assistant Engineer, 1st grade.

|| Allowing for further casualty.

¶ Pay of Executive Engineer, 1st grade.

NOTE.—Departmental promotion will probably be slower than here shown; in which case, or if casualties are greater, the cost will be less,

cantonments. During the recent disturbances on the frontier similar conditions have again been observed, and it is believed that about 100 regimental officers have been employed on Commissariat-Transport duties, either in the field, or in purchasing and hiring transport, or for the replacement of departmental officers in cantonments. The reason for this is clear. The greatest money-spending department of the Indian Army is, like that army itself, gravely under-officered; with the result that, while on the one hand the necessity for more regimental officers is universally acknowledged and attempts are being made to form a suitable reserve on the other hand regimental officers are withdrawn from their regiments for departmental services. This seems to point to a defect which strikes at the root of the matter under consideration. The first remedy would appear to be a substantial increase in the number of officers in the Commissariat-Transport Department, such as will render it independent of regimental assistance; and then, having suitably increased the permanent establishment of officers in the department, to create a departmental reserve by securing the services of retired honorary commissioned and warrant officers of the department for duty in cantonments in India on an emergency, so as to release effective officers and subordinates for service in the field. As many as possible of those now retired should be induced to volunteer for such reserve, and it should be made a condition of all future appointments of subordinates to the department that they will be liable, on an emergency, to recall for duty, as is the case with Staff Corps officers appointed on or after the 10th January 1892. Such a reserve, under present conditions, would probably not suffice to meet the expansion of the department in time of war, but with a suitable increase in the permanent establishment of the officers of the department and assistance from civilians in the reserve of officers (who are better suited for such work than for regimental duty) the heavy drain on regimental officers for Commissariat and Transport duties in time of war would in course of time be much reduced and ultimately disappear.

A first regimental reserve to be drawn from the British Service.

In order to provide a reserve of qualified officers for transport duties in the field, a British officer is already detailed from each corps to undergo a course of six weeks' training at the district training depot and a fortnight's

subsequent practical instruction.* But the necessity for a reserve of regimental officers for the Native Army is no less important than such a reserve of Transport officers; and if officers of British regiments can be spared, and are trained, to form a transport reserve, it seems equally desirable that they should also be trained to form an effective reserve of regimental officers for Native Corps.

A considerable number of British Infantry battalions and some British Cavalry regiments will remain in garrisons in time of war, and each of these will be able to spare several British officers, either for transport duties as at present arranged, or preferably for regimental duties with Native regiments, the places of officers so transferred being filled, if necessary, by new appointments from home and some promotions from the ranks. But such officers, to be thoroughly efficient in leading Native troops, would require to speak the language and understand the caste-prejudices, customs, and habits of the men they would have to lead. Hence, it seems desirable that courses should be instituted on the lines of the present transport classes to train young officers of British regiments in matters connected with the interior economy, etc., of Native corps. The first requirement is a fair knowledge of Hindustani. Therefore, before officers could go through such a course, they should have passed the Lower Standard and be able to understand and make themselves understood to natives. Having this qualification, Captains and Subalterns—especially the latter—to the extent of one or two annually from each British regiment, might be attached for two or three months to a Native Cavalry or Infantry regiment in their own station or district, or at some prescribed centre, to lead the men, to learn the customs of the various classes of men enlisted, and to study the organisation and interior economy of a Native regiment; and at the expiration of this time they would be examined to show that they, by the knowledge they had acquired, were perfectly competent to act as squadron or wing officers with a Native regiment in the field. When passed, they would be shown in the Army List as having qualified for duty with a Native regiment (a note being added to show with what class of regiment they had qualified), and they would be eligible for such duty in the event of war. The centres at which these officers would be trained would be chosen with regard to probable requirements. In a serious war Native troops of the more warlike races in the north would probably be more largely employed in the field than those from

* *Vide Army Regulations, India, Volume V, Section XII, paragraph 1781.*

central and southern areas; hence, it would be better that the majority of such officers should be trained in the Punjab and Bengal Commands, or with regiments recruited from northern or frontier races. During the course they would attend parades and orderly-room, study the interior economy of the regiment, become acquainted with the Indian Articles of War, pick up a knowledge of the various races and sects enlisted, their customs, prejudices, and habits, and generally qualify themselves for duty in a Native regiment.

Officers so trained would not be withdrawn from British regiments which were themselves detailed for mobilisation, as such regiments would require their full complement; but they would be taken from regiments left in India for internal defence. There are 52 battalions of British Infantry now on the Indian Establishment, and even if all but 20 were employed in the field, each of the 20 doing garrison duty would probably be able to spare six or eight officers without endangering their efficiency. And similarly as regards cavalry. They would look for their resources and replacements to England, and Native regiments in the field would thus receive officers who understood the language and are accustomed to their ways, instead of getting raw youngsters from home, who, though they might soon prove efficient in a British regiment, would be of little use with sepoys.

Let us consider the case in which the Indian Army may be involved in a struggle for the defence of India—the case in which that army now exists. Every available regiment would have to be placed in the field, and two distinct demands for officers will have to be met—*firstly*, to complete Native regiments, and *secondly*, to help the Commissariat-Transport Department to do what it cannot at present do by itself. The war progresses, great actions are fought; casualties are heavy; and British officers must be provided to lead our sepoys and sowars. We would then have to turn to the only two sources from which they could be supplied, if British Corps are not to assist us, to the reserve composed of civilians, and to recruits from England, the available officers in the Native Army having been practically used up in the first instance to complete regiments going to the front by detaching those left behind.

Now, it is evident that the recruits from home—consisting of large batches pushed quickly through Sandhurst, or even granted direct commissions, or from the reserve of officers at home—would be of little use in Native regiments, as they would not know a word of the language, though they would soon become excellent officers in British Corps; and civilians from the reserve of officers out here would be better

employed in releasing regimental officers from the transport, etc., than in joining regiments themselves while regimental officers were relegated to departmental duty. Hence, if six or eight officers in each British regiment were trained in leading Native troops and in the duties of Native corps, there would be a considerable trained reserve to replace casualties in Native regiments, well suited to the requirements of the case, and more indispensable for that purpose than for departmental work which could satisfactorily be performed by civilians from the Indian Reserve.

The suggestion merely affords means for utilising the resources of England and the Colonies—which, after all, is the final reserve—in a convenient way, *viz.*, by getting a large number of young officers from home, but, instead of bringing them directly into Native regiments where they would be of little use for some time, they would join British corps in replacement of others who can speak the language and have been trained in duties with Native regiments and in the knowledge of the caste-prejudices, customs, etc., of the various classes of sepoy.

To make this system a living reality and to induce officers to qualify themselves, a few who are so qualified should be attached to Native regiments on service whenever an opportunity occurs; and it might also be ruled that officers who were called out to do duty with Native regiments in the field would, if well reported on, be eligible for transfer to the Indian Staff Corps. With these conditions, it is believed that such a system would be most popular. It is a common saying that passing the transport class affords the best means of getting on service, and the last Quarterly Army List shows that 167 officers of the British Service have qualified for employment in the Transport Branch of the Commissariat Department. If then it became known that qualifying for regimental duty with Native regiments would also give an opening for service *as regimental officers instead of as transport assistants*, a large number of officers would qualify themselves for enrolment in what would really be a first regimental reserve of officers for the Native Army. And the condition of eligibility for admission to the Staff Corps, after employment with a Native regiment in the field also seems advisable, as there are many young officers in the British Service who originally wished to get into the Staff Corps, but failed to do so, while others, through circumstances, may later wish for an opportunity to join the Indian Service. These then would be attracted. If they were called out to do duty in the field with

a Native corps and were well reported on, they would have passed a fair probation for admission to the Staff Corps; and, if not so employed, they would continue with their British regiments and lose nothing. Such a system would thus offer attractions to the officer who has no wish to permanently leave his British regiment, but would qualify himself for the change of employment in the field which he otherwise may not get, and also as an indirect means of admission to the Staff Corps, while it would in itself create a convenient and efficient first reserve of regimental officers for the Native Army, which would enable the resources of England and the Colonies to be utilised in a suitable and effective manner.

It is true that this scheme has the defect that these officers would be strangers to their men. But this is a defect which is inherent in all schemes for a reserve and can only be got rid of by adding more officers permanently to each Native regiment. It has, however, the advantage that the officers will be able to speak the language, will know the duties of squadron or wing officers, and will thoroughly understand the ways of a Native regiment and the habits of the men; and they will thus be better able to act as leaders than if they were suddenly attached without any such training at all.

Reserve for Pioneer regiments.

In addition to the above method of creating a first reserve of regimental officers for the Native Army, further assistance might be obtained by employing Royal Engineer officers with Pioneer regiments in the field. There are seven Pioneer regiments in India, one or other of which is always being employed beyond the frontier, and in a serious war they would probably all be required. When sent on service for an important campaign, each regiment has to have four more British officers added to its establishment; and if two battalions from any group are sent into the field, the one remaining behind cannot meet their full demand for officers, who have, therefore, to be detailed from some Native Infantry regiment. (This will always be the case with the 25th Bombay Pioneers.) This, therefore, seems to be a case in which the drain on the Native Army might be somewhat reduced, and the efficiency of Pioneer regiments, as such, improved, by utilising the services of a few Royal Engineer officers. Such a course would not be necessary or desirable in small campaigns, but in a serious war, when the establishment of British officers in Pioneer regiments has to be increased and numerous casualties replaced, it would be well

to provide the additional officers from Royal Engineers instead of withdrawing officers from Native Infantry regiments for the purpose. The officers so attached should, if possible, have passed the Higher Standard, and would preferably be subalterns, who would join as wing officers and thus be less liable to interfere with inter-regimental promotion. At the conclusion of the campaign they would revert to their normal duties, the vacancies being filled up from the Staff Corps under the present system. By their training they would be able to add to the utility of the regiments, and in this way they would form another small reserve of strength for the Native Army.

Additional Remarks.

In dealing with this question of a reserve of officers, several other schemes and possible sources of assistance have also been considered, but only three call for a few remarks. They are :—

- (i) Whether native gentlemen of position should be given a wider field of employment as officers in the Native Army.
- (ii) Whether commissions should, on an emergency, be offered to selected non-commissioned officers of British Corps, in order that they may form an additional source of reserve for the Native Army.
- (iii) Employing Volunteer officers in the reserve.

The first has been rejected, because, whatever may be the case in years to come, the time is not yet ripe for introducing a change which might produce momentous, and even disastrous consequences ; and because it is believed that the best native leading cannot take the place of leading by British officers, which alone will enable the Native Army to successfully perform its part in the defence of the Empire.

As regards the second point, such promotions would no doubt be made in a time of emergency and would be of material *indirect* assistance to the Native Army. But non-commissioned officers so promoted would, as a rule, be better employed in British Corps to take the place of young officers trained in the duties of Native regiments, instead of being themselves transferred on promotion to the Native Army. A knowledge of Hindustani cannot be made a condition of promotion from the ranks ; hence, there would be no guarantee that such men would be able to make themselves understood to natives. It would not be possible to train them beforehand in the duties of squadron or wing officers as has been proposed (and seems desirable) in the case of young officers of British regiments. Moreover, it

is not to be expected that all would, by their previous training, even make good Transport officers. And finally natives, who are particularly quick in detecting the difference between class and class and who have a great belief in *izzat*, would more readily follow the lead of a young officer fresh from school than one who they knew had just left the ranks. Thus, officers promoted from the ranks belong to the same category as other replacements and reserves for *British Corps*, and do not directly add to the reserve the Native Army, though they will help the Native Army in proportion as they will set free other officers better qualified for the duties.

As regards volunteers, those who are not military men belong to one or other of the various classes of "Civilians" already dealt with; and, as liability to army service cannot—or should not—be made a condition of joining the volunteers, the extent to which they can suitably be employed in the reserve will depend on the conditions governing their civil status, irrespective of the fact of their being volunteers.

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Summary and conclusion.

The following is a brief summary of the suggestions put forward above to obtain an efficient reserve of officers for the Indian Army.—

- (i) To secure a first regimental reserve for the Native Army and to tap the resources of England and the Colonies in a convenient and effective way, young officers of British cavalry and infantry regiments in India should be trained in the duties of squadron and wing officers with Native corps. This is especially desirable for infantry.
- (ii) In a serious war Pioneer regiments should receive their additional British officers from the Royal Engineers (subalterns only); and casualties should be replaced from the same source. For minor campaigns, this would not be necessary.
- (iii) A departmental reserve should be formed for the Commissariat-Transport Department by securing the services of retired honorary commissioned and warrant officers.

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- (a) a language qualification should be prescribed in the case of private individuals ;
 - (b) their rank and status as reserve officers should be more fully and publicly recognised ;
 - (c) there should be greater facilities for entering the regular army from the reserve, after being called out ; and
 - (d) officers of Government Civil Departments, when called to army service, should not receive less than the pay of their civil appointments at the time.
- (v) Unless the above class (iv) is largely and sufficiently augmented within a reasonably short space of time by volunteers from Government Civil Departments (especially the Public Works) and after the necessity for gaining recruits has been impressed on Local Governments and Heads of Departments, it should be made a condition of future appointments to the Imperial Public Works, especially from Cooper's Hills (Native and Eurasians excepted) that they should join the reserve. If required, similar conditions might also be attached to all future appointments to the Forest Department from Cooper's Hill, etc.
- (vi) All officers appointed in future to the Indian Police to be members of the reserve.

The reserve would then be composed of five distinct divisions,* each being utilised as may be required and according to the degree and conditions of each emergency ; and in this way it is thought that a sufficient and reliable reserve can be obtained to provide for the first necessities of a great war.†

It is fully realised that the proposals here made are open to objections ; but it is doubtful if any solution will be free from defects, financial or otherwise, and it is necessary to

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† Table II shows the estimated number of reserve officers which it is expected would be obtained in 10 years' time if these proposals are adopted. The numbers would subsequently increase largely.

briefly summarise the reasons why these conclusions have been arrived at.

It is believed that the present establishment of British officers in the Indian Army is totally inadequate to enable the native elements of that army to satisfactorily meet their future responsibilities, and an attempt has been made to bring home the conviction that an early and substantial increase is necessary. Failing this, or assistance from the British Army, the supply of additional officers to meet the requirements of a great war can only be obtained from non-military sources, which are plentiful outside India, but in India are extremely limited and are largely restricted to officials of Government Civil Departments. Those outside India form a large and final reserve from which British regiments can be fed, but from ignorance of the language and habits of natives they are unsuited for the immediate requirements of the Native Army. Hence, it has been suggested that the British Army in India should provide trained officers as a first regimental reserve for the Native Army, the vacancies so caused being filled from the large available reserve in England and the Colonies.

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TABLE I.

Approximate cost of training Cooper's Hill Engineers as reserve officers.

I.—On their arrival in India—

| | | | | Rs. |
|--|-------|-----|-----|-------|
| Two months' course for ten Civil Engineers at Rs. 350* | | | | |
| each per mensem | ... | ... | ... | 7,000 |
| Donations on passing | ... | ... | ... | 1,000 |
| | | | | <hr/> |
| | Total | ... | | 8,000 |
| | | | | <hr/> |

II.—Second training for rank of Captain after about 10 years†—

| | | | |
|--|-----|-----|-------|
| Two months' special leave for nine‡ Civil Engineer at Rs. 550§ each per mensem | ... | ... | 9,900 |
|--|-----|-----|-------|

III.—Third training for rank of Major after about 19 years†—

| | | |
|---|-----|--------|
| Two months' special leave for eight Civil Engineers at Rs. 1,000¶ each per mensem | ... | 16,000 |
|---|-----|--------|

GRAND TOTAL ... 33,900

Average cost per officer = $\frac{33,900}{9}$ = Rs. 3,766-10-8

* Pay of Assistant Engineer, 3rd grade.

† Vide Public Works Departmental Code, Volume I, Chapter I, paragraph 59.

‡ Allowing for casualties at the rate of 10 per cent.

§ Pay of Assistant Engineer, 1st grade.

|| Allowing for further casualty.

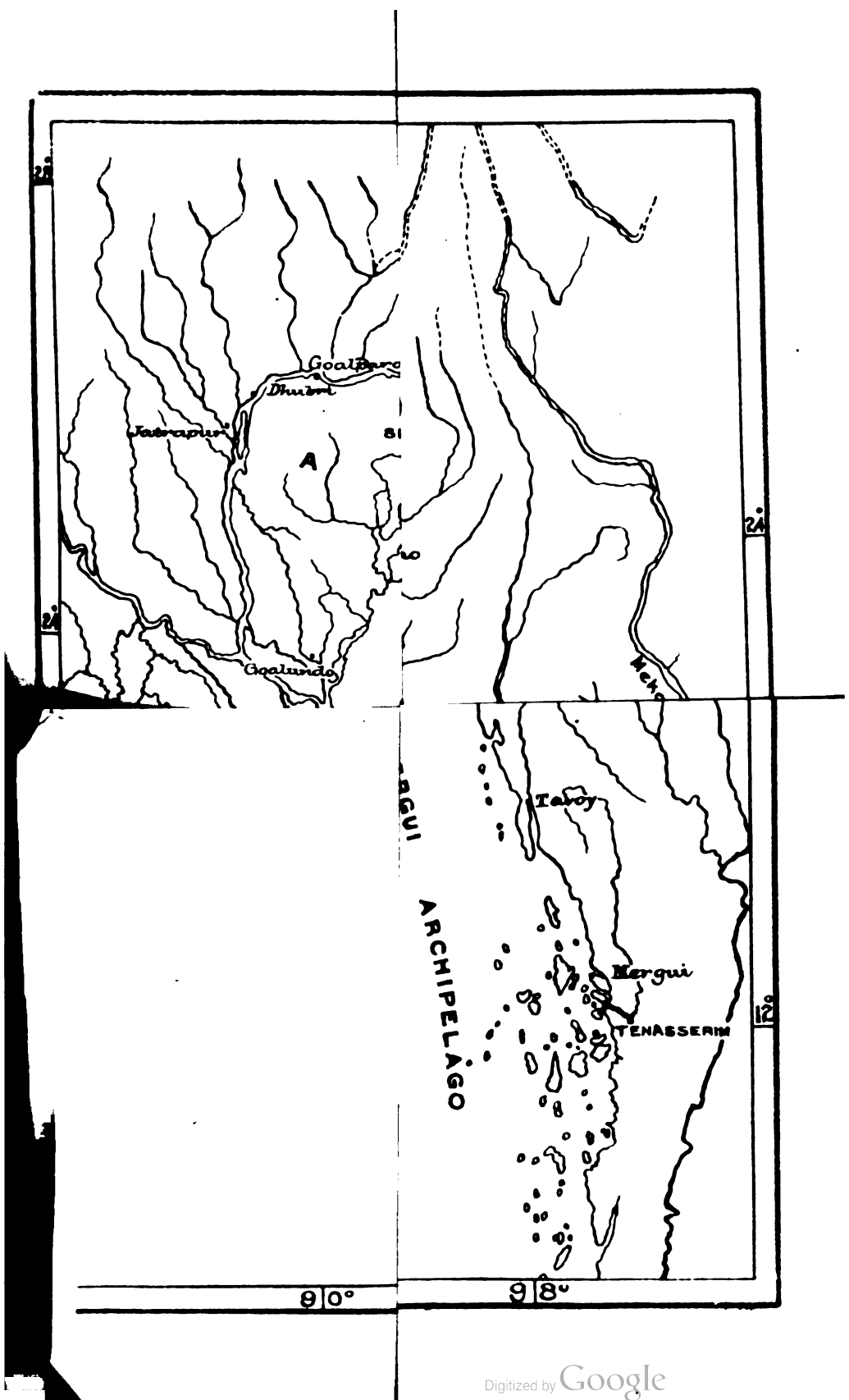
¶ Pay of Executive Engineer, 1st grade.

NOTE.—Departmental promotion will probably be slower than here shown; in which case, or if casualties are greater, the cost will be less.

TABLE II.

Showing the estimated number of reserve officers for the Indian Army which it is expected would be obtained in ten years' time if the proposals made are adopted.

| Source. | Estimated numbers obtained in ten years. | REMARKS. |
|---|--|--|
| I. First reserve of regimental officers from British Cavalry and Infantry regiments in India. | 120 | It is assumed that in ten years each British regiment in India would have six or eight young officers trained as suggested. The whole number would not be available; but if 20 regiments remained in garrisons, at least 120 officers should be available; if 25 regiments remained in garrisons, at least 150 officers should be available; and so on. The number here shown allows for only 20 British regiments remaining in garrisons during a great war. It hardly seems probable that the number would be less than this; and if more were left—or there were more than six trained officers per regiment—this first regimental reserve would be increased accordingly. |
| II. Royal Engineer reserve for Pioneer regiments. | (say) 44 | This is allowing four officers for each of five Pioneer regiments at the outbreak of war, and replacement of casualties at the rate of 40 per cent. on $(5 \times 12) = 60$ officers for one year. The number will depend on the demands. |
| III. Departmental reserve for the Commissariat-Transport Department. | (say) 5 | This will entirely depend on volunteers until new men joining begin to retire under conditions of liability to recall. But later on this reserve should rise to between 30 and 40 honorary commissioned officers of this department. (Last Quarterly Army List shows 36 now retired.) |
| IV. Volunteer reserve consisting of private individuals and officers now in Government Civil Departments. | (say) 50 | This also depends entirely on volunteering, so is doubtful. The present reserve has been in force for about four years, and the last Quarterly Army List shows that only 20 have joined. The estimate here given allows for the same rate of progress. |
| V. New appointments to the Imperial Public Works. | 90 | From Civil Lists it appears that about this number of Cooper's Hill Engineers have been appointed to the Public Works Department (Railways Accounts excepted) during the past ten years and are still serving. |
| VI. New appointments to the Forest Department from Cooper's Hill. | 75 | From Civil Lists it appears that about this number of trained officers have been appointed from to the Forest Department during the past years, and are still serving. |
| VII. New appointments to the Indian Police. | 200 | From Civil Lists it appears that about this number of officers have been appointed to the Indian Police during the past ten years, and are serving. This will form the final reserve in India, and extent to which it will be indented upon depend on the degree and conditions of emergency. |
| Total | ... | 584 |
| | | Or an average of about 58 annually. |



FIRST BURMESE WAR.

BY MAJOR A. KEENE, D.S.O., ROYAL ARTILLERY.

Tuesday, 3rd May 1898.

HIS EXCELLENCY SIR C. E. NAIRNE, K.C.B., IN THE
CHAIR.

YOUR EXCELLENCY, LADIES, AND GENTLEMEN,

In seeking for the causes that led to our first war with Burma, we need not go further back than the end of last century, when Colonel Symes went on a mission to the Court of Ava. One of his objects was, "to procure for British traders immunity from the oppression and extortion to which they were constantly exposed in their visits to Burmese ports." In this, the protection of our trade interests, will be found the key note of our dealings with Burma.

The treaty which was the result of Colonel Symes' mission did good for a short time, but in 1811 we find that the King of Ava had laid an embargo on all British vessels in Rangoon. The resources of the East India Company had however been very severely taxed by the wars promoted under the Marquis of Wellesley, so peaceful negotiation was again tried. Encouraged by this sign of weakness, the Burman King invaded Assam, conquered Manipur, sent troops into our territories, oppressed our traders and in many ways insulted us.

The Burmans who thus defied the power of the Honourable East India Company have, from the earliest period known to us, occupied the basin or middle region of the Irrawady; but in 1823 their kingdom had reached its greatest expansion, for it embraced, besides the above region, the lately acquired provinces of Arakan, Pegu and Tenasserim. It also laid claim to Assam, Cachar and Manipur. Many Shan States must also have acknowledged the power of the Court of Ava, for we shall find large bodies of Shans fighting on the side of the Burmese.

The chief races of the Burman Empire were the Burmese proper, the Talaings and the Karens. They all show traces of a common origin, that is, they are of a Mongoloid type, short in stature, yellow in colour, with very little hair on the face and small eyes set obliquely in the head.

The most satisfactory theory seems to be, that these tribes, starting from the great seed plot of Central Asia, struck the sources of the Irrawady and following the course of that mighty river settled in the region indicated. The Talaings

is not to be expected that all would, by their previous training, even make good Transport officers. And finally natives, who are particularly quick in detecting the difference between class and class and who have a great belief in *izzat*, would more readily follow the lead of a young officer fresh from school than one who they knew had just left the ranks. Thus, officers promoted from the ranks belong to the same category as other replacements and reserves for *British Corps*, and do not directly add to the reserve the Native Army, though they will help the Native Army in proportion as they will set free other officers better qualified for the duties.

As regards volunteers, those who are not military men belong to one or other of the various classes of "Civilians" already dealt with; and, as liability to army service cannot—or should not—be made a condition of joining the volunteers, the extent to which they can suitably be employed in the reserve will depend on the conditions governing their civil status, irrespective of the fact of their being volunteers.

In this paper all reference to the Medical and Veterinary Departments has been omitted, as these may conveniently and suitably continue to find their first reserves in the civil branches of the departments, falling back on recruits from home as their final reserves. For neither of them can any material assistance be expected from the few private practitioners in India.

Summary and conclusion.

The following is a brief summary of the suggestions put forward above to obtain an efficient reserve of officers for the Indian Army:—

- (i) To secure a first regimental reserve for the Native Army and to tap the resources of England and the Colonies in a convenient and effective way, young officers of British cavalry and infantry regiments in India should be trained in the duties of squadron and wing officers with Native corps. This is especially desirable for infantry.
- (ii) In a serious war Pioneer regiments should reserve their additional British officers from the Royal Engineers (subalterns only); and casualties should be replaced from the same source. For minor campaigns, this would not be necessary.
- (iii) A departmental reserve should be formed for the Commissariat-Transport Department by securing the services of retired honorary commissioned and warrant officers.

- (iv) Civilians now in Government service (members of the Indian Civil Service excepted), retired military officers who are not liable to recall, and private individuals should be attracted to volunteer for the reserve under the present rules, excepting that—
- (a) a language qualification should be prescribed in the case of private individuals ;
 - (b) their rank and status as reserve officers should be more fully and publicly recognised ;
 - (c) there should be greater facilities for entering the regular army from the reserve, after being called out ; and
 - (d) officers of Government Civil Departments, when called to army service, should not receive less than the pay of their civil appointments at the time.
- (v) Unless the above class (iv) is largely and sufficiently augmented within a reasonably short space of time by volunteers from Government Civil Departments (especially the Public Works) and after the necessity for gaining recruits has been impressed on Local Governments and Heads of Departments, it should be made a condition of future appointments to the Imperial Public Works, especially from Cooper's Hills (Native and Eurasians excepted) that they should join the reserve. If required, similar conditions might also be attached to all future appointments to the Forest Department from Cooper's Hill, etc.
- (vi) All officers appointed in future to the Indian Police to be members of the reserve.

The reserve would then be composed of five distinct divisions,* each being utilised as may be required and according to the degree and conditions of each emergency ; and in this way it is thought that a sufficient and reliable reserve can be obtained to provide for the first necessities of a great war.†

It is fully realised that the proposals here made are open to objections ; but it is doubtful if any solution will be free from defects, financial or otherwise, and it is necessary to

* The Royal Engineer reserve for Pioneer regiments will always be available without any classification.

† Table II shows the estimated number of reserve officers which it is expected would be obtained in 10 years' time if these proposals are adopted. The numbers would subsequently increase largely.

briefly summarise the reasons why these conclusions have been arrived at.

It is believed that the present establishment of British officers in the Indian Army is totally inadequate to enable the native elements of that army to satisfactorily meet their future responsibilities, and an attempt has been made to bring home the conviction that an early and substantial increase is necessary. Failing this, or assistance from the British Army, the supply of additional officers to meet the requirements of a great war can only be obtained from non-military sources, which are plentiful outside India, but in India are extremely limited and are largely restricted to officials of Government Civil Departments. Those outside India form a large and final reserve from which British regiments can be fed, but from ignorance of the language and habits of natives they are unsuited for the immediate requirements of the Native Army. Hence, it has been suggested that the British Army in India should provide trained officers as a first regimental reserve for the Native Army, the vacancies so caused being filled from the large available reserve in England and the Colonies.

To obtain recruits from the limited civil population in India the matter rests on choice between a voluntary system pure and simple, or compulsory liability to service, or a combination of both. An entirely voluntary system will, it is believed, fail, unless tangible inducements are offered, involving considerable expenditure on retaining-fees; whereas liability to military service, judiciously regulated and restricted to suitable classes of Government officials, implies a very slight degree of hardship on individuals with trifling cost to Government. If a large expenditure be permissible, it will probably be best devoted to the addition of more officers to the Staff Corps. If not, then it is believed that a sufficient voluntary reserve of suitable officers will remain an object to be sought after, but always beyond the range of accomplished facts, and the choice thus remains of forming a reserve composed chiefly of certain Government officials engaged with leave to military service on an emergency, in addition to the few private individuals and others who may be induced to volunteer, or leaving the army to meet the crisis, when it arrives, with inadequate leadership. Hence, liability to military service on an emergency has been recommended in the case of certain Government officials who, in a crisis, could be best spared for such duties.

TABLE I.

Approximate cost of training Cooper's Hill Engineers as reserve officers.

I.—On their arrival in India—

| | Rs. |
|--|-------|
| Two months' course for ten Civil Engineers at Rs. 350* each per mensem | 7,000 |
| Donations on passing | 1,000 |
| Total | 8,000 |

II.—Second training for rank of Captain after about 10 years†—

| | |
|--|-------|
| Two months' special leave for nine‡ Civil Engineer at Rs. 550§ each per mensem | 9,900 |
|--|-------|

III.—Third training for rank of Major after about 19 years†—

| | |
|--|--------|
| Two months' special leave for eight Civil Engineers at Rs. 1,000¶ each per mensem | 16,000 |
|--|--------|

| | |
|--|--------|
| GRAND TOTAL | 33,900 |
| Average cost per officer = $\frac{33,900}{9}$ = Rs. 3,766-10-8 | |

* Pay of Assistant Engineer, 3rd grade.

† *Vide* Public Works Departmental Code, Volume I, Chapter I, paragraph 59.

‡ Allowing for casualties at the rate of 10 per cent.

§ Pay of Assistant Engineer, 1st grade.

|| Allowing for further casualty.

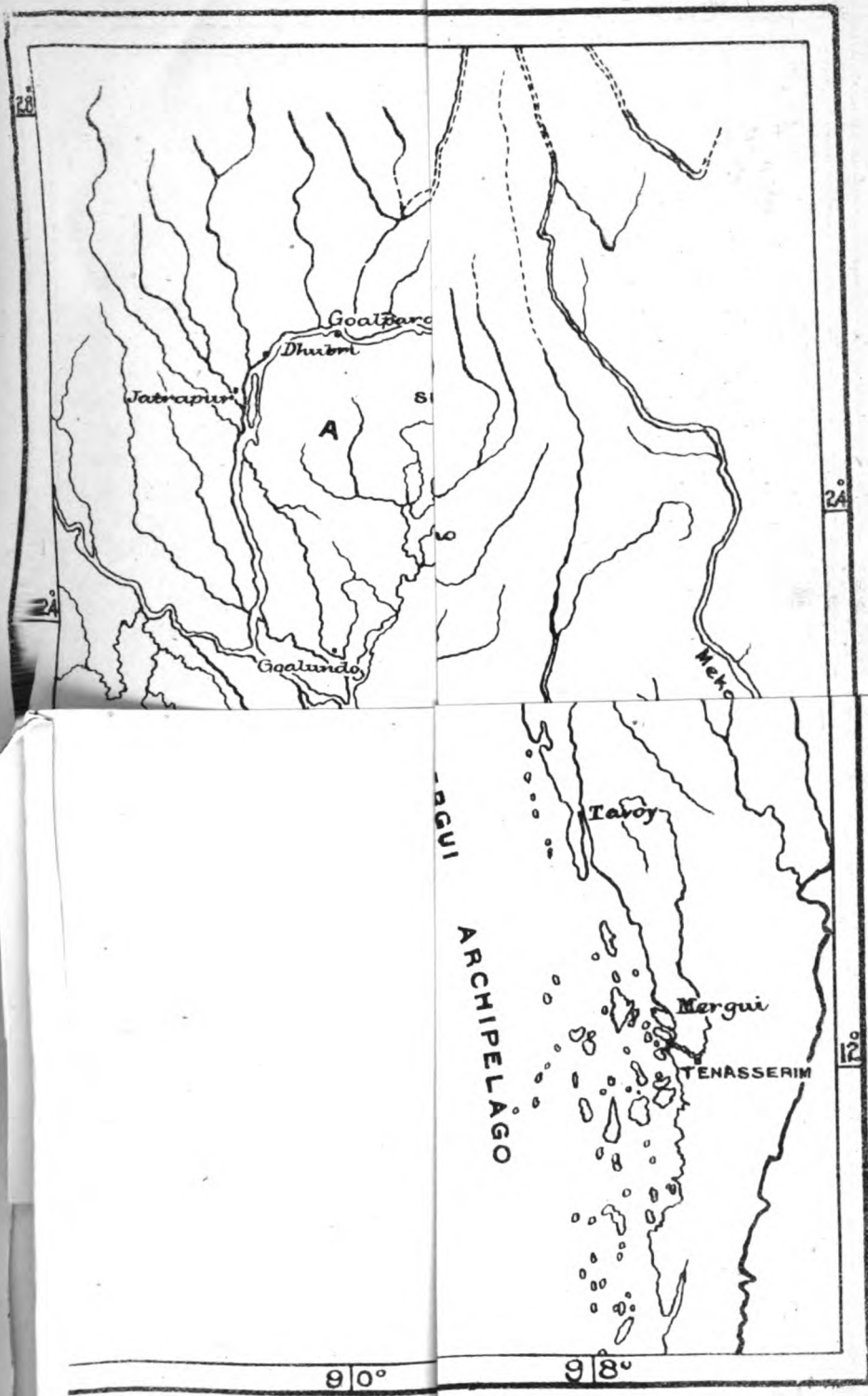
¶ Pay of Executive Engineer, 1st grade.

NOTE.—Departmental promotion will probably be slower than here shown; in which case, or if casualties are greater, the cost will be less.

TABLE II.

Showing the estimated number of reserve officers for the Indian Army which it is expected would be obtained in ten years' time if the proposals made are adopted.

| Source. | Estimated numbers obtained in ten years. | REMARKS. |
|---|--|--|
| I. First reserve of regimental officers from British Cavalry and Infantry regiments in India. | 120 | It is assumed that in ten years each British regiment in India would have six or eight young officers trained as suggested. The whole number would not be available; but if 20 regiments remained in garrisons, at least 120 officers should be available; if 25 regiments remained in garrisons, at least 150 officers should be available; and so on. The number here shown allows for only 20 British regiments remaining in garrisons during a great war. It hardly seems probable that the number would be less than this; and if more were left—or there were more than six trained officers per regiment—this first regimental reserve would be increased accordingly. |
| II. Royal Engineer reserve for Pioneer regiments. | (say) 44 | This is allowing four officers for each of five Pioneer regiments at the outbreak of war, and replacement of casualties at the rate of 40 per cent. on $(5 \times 12) = 60$ officers for one year. The number will depend on the demands. |
| III. Departmental reserve for the Commissariat-Transport Department. | (say) 5 | This will entirely depend on volunteers until new men joining begin to retire under conditions of liability to recall. But later on this reserve should rise to between 30 and 40 honorary commissioned officers of this department. (Last Quarterly Army List shows 36 now retired.) |
| IV. Volunteer reserve consisting of private individuals and officers now in Government Civil Departments. | (say) 50 | This also depends entirely on volunteering, so is doubtful. The present reserve has been in force for about four years, and the last Quarterly Army List shows that only 20 have joined. The estimate here given allows for the same rate of progress. |
| V. New appointments to the Imperial Public Works. | 90 | From Civil Lists it appears that about this number of Cooper's Hill Engineers have been appointed to the Public Works Department (Railways and Accounts excepted) during the past ten years, and are still serving. |
| VI. New appointments to the Forest Department from Cooper's Hill. | 75 | From Civil Lists it appears that about this number of trained officers have been appointed from home to the Forest Department during the past ten years, and are still serving. |
| VII. New appointments to the Indian Police. | 200 | From Civil Lists it appears that about this number of officers have been appointed to the Indian Police during the past ten years, and are still serving. This will form the final reserve in India, and the extent to which it will be indented upon will depend on the degree and conditions of each emergency. |
| Total | ... | 584 |
| | | Or an average of about 58 annually. |



FIRST BURMESE WAR.

BY MAJOR A. KEENE, D.S.O., ROYAL ARTILLERY.

Tuesday, 3rd May 1898.

HIS EXCELLENCY SIR C. E. NAIRNE, K.C.B., IN THE
CHAIR.

YOUR EXCELLENCY, LADIES, AND GENTLEMEN,

In seeking for the causes that led to our first war with Burma, we need not go further back than the end of last century, when Colonel Symes went on a mission to the Court of Ava. One of his objects was, "to procure for British traders immunity from the oppression and extortion to which they were constantly exposed in their visits to Burmese ports." In this, the protection of our trade interests, will be found the key note of our dealings with Burma.

The treaty which was the result of Colonel Symes' mission did good for a short time, but in 1811 we find that the King of Ava had laid an embargo on all British vessels in Rangoon. The resources of the East India Company had however been very severely taxed by the wars promoted under the Marquis of Wellesley, so peaceful negotiation was again tried. Encouraged by this sign of weakness, the Burman King invaded Assam, conquered Manipur, sent troops into our territories, oppressed our traders and in many ways insulted us.

The Burmans who thus defied the power of the Honourable East India Company have, from the earliest period known to us, occupied the basin or middle region of the Irrawady; but in 1823 their kingdom had reached its greatest expansion, for it embraced, besides the above region, the lately acquired provinces of Arakan, Pegu and Tenasserim. It also laid claim to Assam, Cachar and Manipur. Many Shan States must also have acknowledged the power of the Court of Ava, for we shall find large bodies of Shans fighting on the side of the Burmese.

The chief races of the Burman Empire were the Burmese proper, the Talaings and the Karens. They all show traces of a common origin, that is, they are of a Mongoloid type, short in stature, yellow in colour, with very little hair on the face and small eyes set obliquely in the head.

The most satisfactory theory seems to be, that these tribes, starting from the great seed plot of Central Asia, struck the sources of the Irrawady and following the course of that mighty river settled in the region indicated. The Talaings

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are closely allied to the Burmans; they are however taller and fairer. They lived in the Province of Pegu and many were the struggles between them and the Burmese for its possession. They accepted our invasion gladly, and to this day most of the clerks and subordinate officials in Lower Burma are Talaings.

The Karens differ considerably from the Burmese in dress and appearance. They were found throughout Lower Burma from Mergui on the south to Bassein on the west, and as far north as Prome and Toungoo. They were much oppressed by the Burmese and readily joined us. At the present day Karens form the backbone of our Burma Company of Sappers and Miners at Mandalay.

In August 1823 Lord Amherst landed in Calcutta as Governor-General. His attention was soon drawn to Burmese affairs, for on 24th September a body of some 600 Arakanese soldiers of the Burman Army attacked and drove out a small guard of our native troops on the island of Shahpuri. This small island lies at the mouth of the Naaf river which marked the boundary between Arakan which was Burmese, and Chittagong, which was British territory. Several of our Mugh subjects, emigrants from Arakan, were killed in their own boats on the Naaf river. A strong force was at once sent from Calcutta and our post at Shahpuri re-occupied. Remonstrances were addressed to the Court of Ava, but the Viceroy of Pegu, who acted as the mouthpiece of the Court, replied as follows:—He claimed Dacca and Chittagong for his master: asserted that Shahpuri was indisputably Burmese, and told the Viceroy that further communications were to be addressed as petitions to the Burmese General Bandula. Consequently on 5th March 1824 war was declared by the Government of Fort William.

Hostilities began with operations on the frontiers of Sylhet and Chittagong. After some ups and downs of fighting, Colonel M'Morine by the end of March penetrated as far as Gauhati. The Burmese then evacuated Assam. On the Chittagong frontier affairs did not go so well. The force there under Captain Noton was small and had no stiffening of British troops. In May 1824 he was attacked and overwhelmed by a powerful body of Burmese, most of the British officers being slain in the fight. This reverse took place at Ramu near Chittagong. Confidently expecting reinforcements from the latter place Noton held his ground, though he had but 500 sepoy and some Mugh levies. The Burmans however

advanced on his position by regular approaches, resembling those made in a siege in civilized warfare, and their steady and stealthy attack was too much for the weak nerves of our raw levies. These went first; then the sepoys too retreated without awaiting an actual assault. Borne along in the rush, the officers did all they could to make the retreat an orderly one and succeeded for some time, but our sepoys, coming to a river, broke their ranks and dispersed. Many were killed; some escaped to Chittagong, but numbers were made prisoners and carried captive to Ava. The Burmans were under the command of one Bandula, a general whose name we shall frequently hear again.

When the news of this reverse reached Calcutta a panic set in, for there was no force at all between that port and Chittagong. The European inhabitants were formed into a militia and the crews of the Company's ships landed to aid in protecting the town.

Meanwhile a force had been collected for the invasion of Burma. It was furnished partly from Madras and partly from Bengal. The ships conveying these troops rendezvoused at the Andaman Islands on the 3rd May, and after a short delay for the purpose of laying in a supply of fresh drinking water sailed for Rangoon on the 5th. It is interesting to note that the difficulty about water was overcome by the exertions of Captain Marryat, the famous novelist, who was present in command of *H. M. S. Larne*.

On the 11th May our ships were in the Rangoon river. The Burmese taken utterly by surprise, hurriedly prepared for resistance, but our troops gave them no time. They landed on the 12th under a heavy fire from the ships and in half an hour the British flag was seen flying in the town.

The British force that landed in Rangoon in May 1824 was composed as follows:—

From Bengal.

13th Light Infantry, 38th Foot, 20th Bengal Infantry.
16 guns of sorts, including four 18-pounders.

From Madras.

41st Foot, Madras Fusiliers, 3rd, 7th, 8th, 9th and 10th
Madras Infantry.
26 guns from 18-pounders downwards.

Thus at the beginning of the war we had about 10,000 men (4,000 of them British) and 42 guns. These were conveyed in 35 transports, trading vessels of the Company, and

escorted by the following vessels of war:—H.M.S. *Liffey*, *Slaney*, *Larne* and *Sophie*. Honourable East India Company's ships *Hastings*, *Teignmouth*, *Mercury*, *Thetis*, *Prince of Wales* and *Jessy*.

There were also some fifteen gun brigs and schooners carrying 12 pounder carronades and four swivel guns each. There was besides a flotilla of twenty row boats, each carrying an 18-pounder carronade in the bow, and last but not least the small paddle steamer *Diana*. This was the first steamer that ever floated in Eastern Waters and proved wonderfully useful. She was built at Kidderpore and for nearly eight years she did duty in and near Burma without any repairs save such as were done by the Engineers.

To oppose us the Burmans had no standing army, but vast numbers of levies could be raised by indenting on the townships and villages. These levies were armed with muskets of English manufacture, condemned stores of the East India Company bought up by speculators for the Burma market. They also carried spears and the national weapon the 'dah' which is to Burman what a kukri is to a Gurkha. The Burmese were then as now fine muscular men, but of course undisciplined.

There were however a few regiments that wore a sort of uniform, which has been described as follows:—A black glazed jacket, a silk band round the waist, a silk scarf over the shoulder, a red fillet round the hair which was tied in a knot on the top of the head.

They had plenty of artillery which however they could not use well. Most of the guns could fire in one direction only. Their jingals, wall pieces, they managed with great dexterity.

They possessed also large numbers of war boats, many of them mounting small guns in the bows. The largest one that we captured is thus described: She was 83 feet long, 12½ feet broad pulling 52 oars and carrying a 9-pounder gun.

Though Rangoon had fallen thus easily into our hands, we found it but an empty prize. All the inhabitants had fled into the jungles near and no provisions could be obtained. To add to our embarrassment the rainy season was rapidly approaching and the Court of Ava seemed quite unmoved by the fall of Rangoon. Sir Archibald Campbell who commanded the expedition saw that a vigorous advance ought to be made. But to advance was impossible; the rains made it hopeless to attempt to march by land and not a single Burmese boatman could be procured to help us in the navigation of the Irrawady. For six months therefore our operations were confined to Rangoon and the immediate vicinity.

OUR POSITION IN RANGOON.

During the next six months from May to December, the position of our troops in Rangoon was as follows:—

The Staff and Departments were located in the old town of Rangoon. The troops were cantoned in monasteries, and other buildings along the two roads leading from the northern gates of the town to the Shwe Dagon Pagoda. On the terrace of the Pagoda itself were the 38th Foot and details of the Madras Artillery. Later on after we had driven out the Burmese the post of Kemmendine was also held. Though unable to move far, Sir A. Campbell made some vigorous attacks on stockaded positions of the enemy near. Our first fight took place on 28th May 1824. On this occasion Sir A. Campbell at the head of 300 of the 13th Light Infantry and 38th Foot and the 9th Madras Infantry had a short but successful action with the enemy at a place called Yoazong, some eight or ten miles inland, killing 300 or 400 of them and destroying their stockades. This operation cost us two officers and thirty men killed and wounded. The action was well contested on the part of the Burmese who proved no contemptible enemy behind their stockades. At this period the monsoon had fairly set in and so heavy was the rain upon this day that not a musket could be persuaded to go off. Our troops were therefore dependent wholly on the bayonet of which weapon they certainly seem to have made a good use.

On the 3rd of June an attack was made on the Burmese position of Kemmendine. The troops advanced by the direct road which ran from the Shwe Dagon Pagoda straight to Kemmendine through heavy jungle. Sir A. Campbell himself sailed up the river with the ships that were to co-operate; and the land column, left without his guidance, seems to have been badly handled. On arriving at the formidable stockade it was found that no scaling ladders had been brought. The light field guns made no impression on the thick bamboos of the stockade. A native corps in the thick jungle fired into the Madras Fusiliers who were not slow in returning the compliment.

To crown all, as our baffled troops were beginning slowly to retire, shells from the ships in the river came screaming over their heads and hastened their retreat. Weary, drenched and dispirited they returned to Rangoon, having lost 120 killed and wounded.

Coming so early in the campaign this reverse was most unfortunate, and it was necessary to make a speedy and spirited effort to recover our lost laurels. A second attack on Kemmendine was therefore ordered for 10th June. On this occasion five 18-pounders guns and some howitzers accompanied the troops who numbered over 3,000. The advance was made along the principal road connecting Rangoon with Kemmendine. This ran parallel to and within a short distance of the river, and was selected as being a better one for the guns which were all pulled along by sheer manual labour. The chargers of the mounted officers were the only animals that accompanied our troops to Burma.

The enemy had built a strong stockade across the road about half way. From this position they were driven by our troops with a loss to the Burmans of about 200 men. The way being thus cleared the column again moved forward and by nightfall our troops were in position close to the main stockade of Kemmendine. A flotilla of gunboats watched the river face and the military formed a cordon on the land side. Unfortunately from some cause or other a space of about 150 yards on the north face of the work was left unguarded between our sentries and the river. The rain poured the whole night and our troops were busy throwing up entrenchments and forming batteries. At daybreak on the 11th our guns opened fire and in two hours effected a good breach. The troops then advanced to the assault, but not a shot was fired from the stockade. The first man to enter the enemy's works was an Irishman who after looking about him from the top of the stockade exclaimed in a rich brogue to his disappointed comrades below:—"There is nobody in here at all—at all." The Burmans awed by the preparations for surrounding them and disheartened by the loss of the day before, had quietly evacuated their position, thousands of them having in the dark and rainy night slipped through the small opening left on the north face.

It was this facility of retreating which particularly irritated our men who in the moment of victory frequently found that the enemy had slipped as it were from between their fingers. These are only three out of the numerous skirmishes that went on during the long period of our enforced detention in Rangoon.

Unable then to advance further inland, Sir A. Campbell sent out an expedition by sea under Colonel Miles which captured the seaports of Tavoy, Mergui and Tenasserim. The war ships of the Royal Navy and of the Bombay Marine,

afterwards the Indian Navy, that accompanied us to Burma enabled us to capture these seaports with but small loss.

It would be impossible in the limits of this lecture to give details of all that our sailors and marines did during this campaign. It must suffice to say that the ships took part in nearly every fight that occurred. We may take one instance:—On 4th August a party of 800 bayonets was told off for the assault of the Syriam Pagoda position. This expedition was landed opposite Syriam where it was joined by a party of blue jackets under Captain Marryat. After going some way our people found their course checked by a deep and impassable creek. Word was at once sent for the blue jackets to form some sort of a bridge. In Captain Doveton's words—

“The sailors responded readily to the summons brushing past us helter skelter with Captain Marryat at their head. Some of us were much amused at the time for the first order given by the gallant commander was, “Throw aside your muskets men and follow me,” and we soldiers were startled to see how the Jack Tars threw their firelocks to the right and left in the swampy ground apparently quite indifferent to their fate. The bridge however was soon made.”

The muskets seem to have been rather an encumbrance to the sailors on shore, but it is admitted that either with the cutlass or in the management of their big guns they were quite at home and could then as now turn their hands to almost anything.

As time passed on the King of Burma, seeing how firmly we were established at Rangoon, determined to concentrate all his strength on that point and drive the invaders into the sea. He recalled therefore his armies from Arakan and Assam, and joining to these further levies raised in the valley of the Irrawady, he placed the whole under the command of Bandula, the general who had become famed throughout Burma by his successes against us at Chittagong. Bandula had established himself at Ramu and was probably making preparations to invade Bengal; at any rate he is said to have carried about with him a pair of golden fetters for the special benefit of our Governor-General.

Bandula then was obliged to abandon these schemes of conquest and to withdraw his army. This movement carried out as it was in the rainy season must have been an arduous one, but his withdrawal was felt as a great relief in Calcutta.

While the Court of Ava is collecting fresh armies to drive the invaders into the sea, let us see how our troops at Rangoon fared during the long months of the monsoon. As to lodging

they were pretty well off, for they were housed in deserted monasteries, etc. The food however was bad. Rangoon and the country near had been completely cleared of all supplies and inhabitants. No food could be got at all. The Madras Fusiliers found it necessary to break up their mess and split into parties of twos and threes who foraged for themselves. Rations were issued to officers. One of them tells us how every morning his servant could be seen returning, from the ration-stand, with a piece of salt meat dangling on a string, a biscuit in a dirty towel and a couple of drams of arrack in the bottom of a quart bottle. As an occasional treat they had a curried dove or a paddy-bird, but for six or eight months the fare consisted of salt meat boiled, salt meat fried, salt meat curried, with hams and tongues bought from the ships at exorbitant prices. To this may be attributed the loss of life in Rangoon, where the troops died in hundreds of scurvy and dysentery, the result of bad food and hard service during the rainy season. No fresh meat, bread, milk or vegetables could be got, and the dieting of the sick was a most difficult task. The dysentery was often aggravated by the jack-fruit, pine-apples, etc., that the men picked up in the jungles near, for pine-apples grow in profusion near Rangoon.

As for the dress worn by our soldiers during this war, contemporaneous sketches exist which show the British soldiers with their tall stiff shakos, their straight-cut coats of red cloth, their closely fitting breeches and well kept accoutrements jumping into stockades, hurried but still dignified. The bayonet is plied and the smoke of the discharged muskets goes up to the sky in white puffs. On the other side are the Burmese, some resisting as best they may, but mostly occupied in rushing away. Above the parapet of the palisade appear the waving palms and the rich forest foliage, the peaceful setting of the scene of bloodshed.

To return to our narrative. Bandula on his arrival at Ava was received with great honours, and accompanied by a large fleet of war boats he moved down the Irrawady. In the meanwhile our army in Rangoon had not been idle. Five hundred native artisans had been sent from Chittagong and were busy preparing boats for our advance up the Irrawady. Reinforcements of troops had also arrived and they seem to have been urgently required, for the Deputy Adjutant General of the time calculated that during the first year of the war $3\frac{1}{2}$ per cent. of our force was killed in action, while no less than 45 per cent. perished from disease.



OPERATIONS NEAR RANGOON.

December 1824.

The first day of December 1824 saw the first conflict between the two reinforced armies. Confident in his vast numbers, computed at from 50,000 to 60,000, Bandula vigorously assumed the offensive. Resting his left on the Boozundoung Creek he spread his forces in a vast semi-circle, which crossed the river and extended as far as Dalla. Meanwhile he commenced a spirited attack on our outpost at Kemmendine. Sir A. Campbell, relying on the valour of his comparatively small force, allowed these movements to go on unmolested, except when he found the Burmans approaching dangerously near. Two vigorous sallies were made on the 1st. In one Majors Sale and Dennie of the 13th Light Infantry, both afterwards so famous in the Afghan War of 1839—1841, greatly distinguished themselves. The second sortie was led by Captain Piper of the 38th Foot. In these sorties the 18th and 28th Madras Infantry were specially mentioned by the general for their gallant behaviour.

On the 2nd and following days the Burmans, issuing from the thick jungle, advanced nearer and nearer our position, but no sooner did they emerge in the open than in Sir A. Campbell's words—"Muskets and spears were laid aside for pick and shovel and in an incredibly short space of time every part of their line was strongly entrenched."

On the 2nd finding that the enemy had entrenched a height in front of the north gate of the Pagoda, the general ordered a sortie under Captain Wilson of the 38th Regiment and the Burmans were driven out with great loss.

On the 3rd and 4th the enemy carried on their approaches with the greatest industry, and it was only the splendid practice of our artillery under Captain Murray that kept down the fire from their trenches. During all this time the enemy continued their attacks on the post of Kemmendine held by a garrison under Major Yates, 26th Madras Infantry, consisting of 500 of the 26th Madras Infantry, 140 Madras Fusiliers and details Madras Artillery. The attacks, though delivered with great spirit, were in every case baffled by the resolute courage of the defenders and the word Kemmendine was ordered to be worn henceforth on the colours and appointments of the 26th Madras Infantry. By the evening of the 4th Sir A. Campbell judged that the enemy's left wing was fully completed with artillery, etc. He attacked it therefore on the morning of the 5th in two columns—one led by Major Sale, the other by Captain Walker of the 3rd Madras Light Infantry.



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On the 3rd and 4th the enemy carried on their approaches with the greatest industry, and it was only the splendid practice of our artillery under Captain Murray that kept down the fire from their trenches. During all this time the enemy continued their attacks on the post of Kemmendine held by a garrison under Major Yates, 26th Madras Infantry, consisting of 500 of the 26th Madras Infantry, 140 Madras Fusiliers and details Madras Artillery. The attacks, though delivered with great spirit, were in every case baffled by the resolute courage of the defenders and the word Kemmendine was ordered to be worn henceforth on the colours and appointments of the 26th Madras Infantry. By the evening of the 4th Sir A. Campbell judged that the enemy's left wing was fully completed with artillery, etc. He attacked it therefore on the morning of the 5th in two columns—one led by Major Sale, the other by Captain Walker of the 3rd Madras Light Infantry.

Major Sale's column, 1,100 strong, was to advance from the Shwe Dagon Pagoda ; Captain Walker's, 600 men, from the White House. In support of this attack our ships went up the Poozundoung Creek and making a feint of landing at 6 A.M. they drew crowds of the enemy down to the shore. They then opened a heavy fire on them. At 7 A.M. a signal was made from the Shwe Dagon Pagoda and the ships ceased firing to enable our troops to advance.

A troop of the Governor-General's body-guard, under Lieutenant Archibald, followed the column under Major Sale. The enemy were defeated and dispersed in every direction, and this small body of cavalry, charging gallantly over the broken and swampy ground, completed their terror and dismay.

In the general orders of the day the parole issued was the word 'Victory,' and the countersign was "Complete." Curiously enough this is the real meaning of the words from which Rangoon is derived. That word is a corruption of Yan = victory Kon = accomplished, and Yankon was the name Alompra gave to the town after his defeat of the Talaings in the struggle for the Province of Pegu.

During these operations we frequently read of the "Cassay Horse" on the enemy's side. These men were Manipuris, the people who have since taught us polo and who were picked for cavalry work from their being such good riders.

Having broken the left wing as above described, Sir A. Campbell patiently awaited the movements of the enemy on their right where they were posted in so thick a jungle that any attack on them was impracticable. On the 6th writes Sir A. Campbell, "I had the pleasure of observing that Bandula had brought up the remnants of his defeated Left to strengthen his Right and Centre. They continued night and day to carry on their approaches in front of the great Pagoda. I ordered the Artillery to slacken their fire and the Infantry to keep out of sight. These tactics were completely successful and on the morning of the 7th the first Line of the Burmans was entrenched so close to our position that our soldiers in their barracks could hear distinctly the insolent shouts of the Burmese bravos."

Now had come the time for us to move. At 11-30 all was ready for the attack which was to be made in four columns led respectively by Lieutenant-Colonels Mallet, Parlbay and Brodie and Captain Wilson, the whole under Colonel Miles. At $\frac{1}{4}$ to 12 every gun that could bear on the trenches opened fire and this fire was kept up with splendid effect. At 12 the cannonade ceased and the columns moved forward to the

attack. The enemy were driven from all their works without a check, abandoning all their guns and munitions of war. The muskets that were found in these positions were all old condemned muskets of our own army.

Sir A. Campbell estimated the loss of the enemy, in these seven days' fighting, as close on 5,000 men and thought that they could not, for some time at least, re-assemble against us. But Bandula seems to have been a resolute general, for in three days' time he had again collected a force of 25,000 men and these entrenched themselves at Kokain, only four miles from the great Pagoda of Rangoon.

This position was attacked and carried by our troops on the 15th December. One column consisting of the 13th Light Infantry and 18th Madras Infantry under Brigadier-General Cotton moved round to the left. They were to fire a signal gun as soon as they were in position and ready to attack. The rest of the troops under Sir A. Campbell himself, consisting of the 38th, 41st and 89th British Regiments were formed to attack in front. As soon as the signal gun was fired, both attacks were delivered simultaneously and with great vigour. The left attack had several strong outworks to carry and suffered most. The front attack carried the position before them by escalade. In this action the 13th Light Infantry alone lost three officers killed and eight wounded; nine men killed and forty-two wounded.* In the whole of

* Out of 220 engaged.

the fighting from the 1st to the 15th our total losses are computed at 40 officers and 500 men killed and wounded out of 5,000 actually engaged.

ARAKAN.

It is now time to return to Arakan, where the war had originally begun and where it was so necessary after the disaster at Ramu to take steps to restore the prestige of the Company. At first some difficulty was experienced in collecting a force, for the Brahman sepoys of the Bengal Army had prejudices against crossing the Black Water. At length however by the end of 1824 a fine army of some 10,000 men was assembled at Chittagong under General Morrison. Little resistance was offered by the enemy, but for months our troops found themselves engaged in a painful struggle with the physical obstacles before them. But all hardships were forgotten when at last the army found itself before the ancient capital of Arakan. This was situated close to where our modern town of Akyab now stands. The position of the enemy was a very strong one. It was a range of hills almost inaccessible, surrounded by dangerous swamps,

the summits being cleared and entrenched. An attack on these heights was made on the evening of March 29th, 1825, but it failed owing to the extreme difficulty of ascending the heights, which were nearly perpendicular, and the stubborn resistance of the enemy who rolled huge stones down the precipices. Pointed pieces of bamboo stuck into the ground wounded the feet of our troops as they advanced. Thirty men were killed and 100 wounded, besides the officers who fell. On the 30th our batteries were established and on 31st, at night, a fresh assault was ordered on the key of the enemy's position. This service was performed entirely with the bayonet, not a shot being fired. The success of the storming party was announced to the camp below by the British drums and fifes striking up the British Grenadiers from the summit, about midnight.

But though successful against the foe these fine troops could achieve no more. Baffled in all the attempts made to cross the hills that intervene between Arakan and the Irrawady, General Morrison had to sit down with his army in the pestilential swamps of Arakan, and there he and nearly all his men perished of fever.

The 44th and 54th Regiments between them took 1,004 men to Arakan: in eight months 595 were dead.

ADVANCE ON PROME.

Having now driven off the enemy from the vicinity of Rangoon, Sir A. Campbell was at liberty to arrange for an advance up country. The inhabitants poured back into the town; reinforcements arrived and native boatmen came forward to help in the move up the river.

The troops for the advance were formed into two columns: one about 2,500 strong to proceed by land under Sir A. Campbell; the other about 1,200 strong under Brigadier-General Cotton to proceed up the river. Brigadier M'Reagh was left in command at Rangoon with about 4,000 men fit for duty.

The land column left Rangoon on 14th February 1825. Owing to bad roads they could only advance about eight miles a day. It was during this march we first got into touch with the Karens, who threw in their lot with us and were most useful in carrying messages between the columns. On 7th March Sir A. Campbell was close enough to hear on his, the eastern bank of the Irrawady, the roar of the cannonade of the river division attacking Donabyu on the western bank. Taking it for granted that this attack must succeed and misled by native reports, General Campbell pushed on towards Prome, with a view to preventing the defeated Burmese from rallying on that town. But on the 11th he heard from General Cotton that his attack on Donabyu had been repulsed. Sir





**BANDoola's LOOK-OUT TREE AT DONOOBEW—
MOUNTING FOUR GUNS.**

A. Campbell therefore retraced his steps and by the 18th had thrown his whole force across to the west bank of the Irrawady. By the 27th he had joined hands with the river column, and by the 29th the combined forces were in position before the very strong entrenchments of Donabyu. Here Bandula was in command in person with some 15,000 men under him. This general was a strict disciplinarian. Fytche says that on one occasion, being displeased with one of his generals, he ordered him to be sawn asunder between two planks, a rather convincing form of official wiggling. The fort or stockade of Donabyu is thus described by an officer who was afterwards stationed there for four months. It stood on the western bank of the Irrawady in shape nearly an oblong of 1,000 yards by 500, on open and level ground. The stockade was formed by thick teak logs, some 15 to 17 feet high, imbedded in the brick ramparts of an old fort that had formerly stood there. It had flank defences in the shape of square bastions, while the six entrances were covered by outworks. The whole was surrounded by a deep ditch and outside this again ran an abattis 30 yards broad. Upon the walls were mounted some 150 guns and 250 jingals. On the river face the defences were strengthened by the presence of 17 war boats. On this river face also stood a huge banyan tree known as Bandula's look-out tree. From Captain Snodgrass's book we are able to give a picture of this curious tree. The branches were lopped off and platforms laid on it on which were mounted guns; the top-most platform was sheltered by a roof and from this a splendid view was got of the country all round.

Distinct from the main work, and lower down the river on the same bank were very strong outworks. About 500 yards from the main work was a chain of small redoubts defending a creek. Again about the same distance further down was another creek defended by a strongly fortified Pagoda. This Pagoda was carried on 7th March by the troops under General Cotton and our men getting in among the enemy with the bayonet killed and wounded some 500 of them. But our attack on the next line of works was repulsed with heavy loss and General Cotton withdrew his men and re-embarked them in their boats.

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For a few days after the force joined hands skirmishing went on and one such skirmish is described by Sir A. Campbell as "novel and interesting." And so it must have been, for

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The occupation of Prome was in every way a success. The climate was good and supplies abundant. The unfortunate inhabitants who had been driven from their houses and had taken refuge in boats on the river were persuaded to return. Then it was that the British soldier had an opportunity of making the acquaintance of the merry light-hearted folk who are now our fellow subjects, and far and away the most popular of all the races living under the shadow of the British Throne. The absence of caste restrictions, their frank and kindly nature, their love of fun and music, commend John Burma to the good graces of John Bull.

After all the miseries of Rangoon it was a perfect delight to the army to be in a place where the bazaars were thronged with happy people dressed in bright clothes and ever ready to laugh and joke with the strangers. There was plenty of amusement, and the scenery was lovely, for at Prome, as in other parts of its long course, the Irrawaddy in its windings forms a series of beautiful lakes, girt by mountains clad in the richest green.

But the Court of Ava was not yet prepared to make peace. A fresh army of some 70,000 men was collected and by November was near Prome. Learning that the principal stockade was at a place called *Hah-ntegou* Sir A. Campbell determined to attack it. Owing presumably to the fact that native troops only were used and the common error was made of attempting a difficult combination of several columns in close and unknown country. The result was disastrous. Unsupported by British troops the native regiments were repulsed with serious loss, and the Burmese encouraged by this success closed

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A curious feature of this engagement was the appearance on the side of the Burmese of three Shan princesses, reported to be young and handsome, who fought with great spirit, reminding our warriors of the stories they had read of the Amazons of old. One of these ladies was actually killed in the fight. One account of this strange incident is given by Major Trant in his book 'Two Years in Ava.' "Being habited," he says, "in a black jacket and large straw hat, similar to the men, her sex at first was not discovered, but when the soldiers ascertained that they had unwittingly been the cause of this pretty creature's premature death, they immediately dug a grave and deposited her corpse in it, with many sincere though unpolished expressions of regret for her melancholy fate."

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On 9th December the advance on Ava was continued. On the 29th our army reached Melloon, half way between Ava and Prome. Here a commissioner arrived from the Court of Ava to sue for peace. But our terms were too hard and the negotiations fell through.

After some delay Sir A. Campbell advanced and on 19th January 1826 drove the Burmans from Melloon. On the fall of this town the Burmese King made one final appeal to the patriotism of his people. Again some 40,000 troops were assembled near Pagan, the ancient capital that had for seven centuries beheld the glories of the Burmese Court. Here they awaited our attack.

They had not long to wait. On 9th February Sir A. Campbell attacked with the usual result. The Burmans fled and their leader returning to Ava was immediately put to death. This fight is interesting from the fact that here the Burmans met us in the open. They were drawn up in a

crescent formation with the main road leading to the centre of the crescent. They appear to have expected us to advance into the centre when they would have fallen on our flanks and rear. But Sir A. Campbell was not to be caught by so patent a device; he attacked the horns of the crescent simultaneously and soon routed the foe.

Our army advanced straight on Ava, and at Yandalu, only 45 miles from Ava was met by two ministers of state, accompanied by all British prisoners taken during the war and a first instalment of the war indemnity, amounting to 25 lakhs of rupees. They had also authority, under the King's signature, to accept such terms of peace as we might propose. No time was lost, and on 24th February 1826 a treaty of peace was signed.

By this treaty—

A.—The Burmese renounced all claim to Assam, Cachar and Jaintia.

B.—Ceded the Provinces of Arakan and Tenasserim.

C.—Abolished all exactions on British ships in Burmese ports.

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Peace being concluded, let us now take a short summary, and first as to the conduct of the war.

A great error was made at the beginning. It was thought that supplies of all sorts would be obtained at Rangoon and that the inhabitants of the province would rally to our standard. These hopes were frustrated by the action of the Burmese Generals, who, pursuing the tactics of the Russians ten years before, drove away all the inhabitants, leaving Rangoon desolate. We thus found ourselves stranded at that port without fresh food and with no means of advancing further into the country.

As regards the actual fighting, our troops under Sir A. Campbell, a veteran of the Peninsular War, were well handled and fought splendidly. When stockades had to be attacked, they were well shelled before the assault was delivered, and the assault itself was generally made by two or more columns, which acted simultaneously and vigorously, signals being used to ensure concerted action. The native troops came nearly all from Madras, for there was a difficulty about sending the Brahmin sepoys of the Bengal Army across the sea. When brigaded with British troops they fought well, and were often mentioned favourably in the General's despatches. When used however alone they failed, as is seen in the disastrous repulse at Wah-hite-g-n and the failure of the first attack on Sarrag.

As for the British troops their valour so impressed the Burmans that they spread the most fabulous tales about them. The white strangers they said would go on fighting after their hands had been chopped off at the stockades, and the medical officers attending them replaced damaged limbs on the spot, and enabled the red-coated devils to return to the fray.

The cost of the war was very heavy both in money and in blood. It is estimated that nearly 12 millions sterling was lavished on the expenses, and that some 15,000 men perished in Burma.

As to the results of the war. By the treaty of peace we gained the Provinces of Assam, Arakan and Tenasserim. Of these the first was destined to become the rival of China in the tea-trade ; Arakan is one of the great rice-fields of the world, and in Tenasserim are the richest and most easily accessible teak forests.

It only remains now to hear the other side of the question. The Burmese account of the war as recorded in their chronicles has at least the merit of brevity. It runs thus :—

“ In the years 1186-87 (Burmese era) the White Strangers of the West fastened a quarrel on the Lord of the Golden Palace. They landed at Rangoon, took that place and Prome, and were permitted to advance as far as Yandabu. For the King from motives of piety and regard to life made no preparation whatever to resist them. The strangers had spent vast sums upon their enterprise, so that by the time they reached Yandabu their resources were exhausted and they were in great distress. They therefore petitioned the King who in his clemency and generosity sent them large sums of money to pay their expenses back and ordered them out of the country.”

Having given you both sides of the question, I will now, with Your Excellency's permission, bring my lecture to a close.

Colonel H. D. Hutchinson said —

YOUR EXCELLENCY, LADIES, AND GENTLEMEN,

I am hardly qualified to offer any remarks on the very interesting lecture by Major Keene that we have just listened to, because I must confess that I have never made any study of the first Burmese War, nor have I had any opportunity to read Major Keene's notes beforehand.

I may however be permitted to draw attention to one or two points that have struck me as I listened to his address. In the first place, I think we may see here, as we have seen on so many other occasions, some of them very recent ones, that when we embark on an expedition beyond our Frontiers, in difficult, inaccessible, and comparatively unknown regions, no one can say with any certainty how long the operations will last, or what they will cost. Major Keene has told us that this first expedition to Burmah lasted nearly two years, and cost the State something like 12 millions sterling. The Indian Government

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The cost of the war was very heavy both in money and in blood. It is estimated that nearly 12 millions sterling was lavished on the expenses, and that some 15,000 men perished in Burma.

As to the results of the war. By the treaty of peace we gained the Provinces of Assam, Arakan and Tenasserim. Of these the first was destined to become the rival of China in the tea-trade ; Arakan is one of the great rice-fields of the world, and in Tenasserim are the richest and most easily accessible teak forests.

It only remains now to hear the other side of the question. The Burmese account of the war as recorded in their chronicles has at least the merit of brevity. It runs thus :—

“In the years 1186-87 (Burmese era) the White Strangers of the West fastened a quarrel on the Lord of the Golden Palace. They landed at Rangoon, took that place and Prome, and were permitted to advance as far as Yandabu. For the King from motives of piety and regard to life made no preparation whatever to resist them. The strangers had spent vast sums upon their enterprise, so that by the time they reached Yandabu their resources were exhausted and they were in great distress. They therefore petitioned the King who in his clemency and generosity sent them large sums of money to pay their expenses back and ordered them out of the country.”

Having given you both sides of the question, I will now, with Your Excellency's permission, bring my lecture to a close.

Colonel H. D. Hutchinson said—

YOUR EXCELLENCY, LADIES, AND GENTLEMEN,

I am hardly qualified to offer any remarks on the very interesting lecture by Major Keene that we have just listened to, because I must confess that I have never made any study of the first Burmese War, nor have I had any opportunity to read Major Keene's notes beforehand.

I may however be permitted to draw attention to one or two points that have struck me as I listened to his address. In the first place, I think we may see here, as we have seen on so many other occasions, some of them very recent ones, that when we embark on an expedition beyond our Frontiers, in difficult, inaccessible, and comparatively unknown regions, no one can say with any certainty how long the operations will last, or what they will cost. Major Keene has told us that this first expedition to Burmah lasted nearly two years, and cost the State something like 12 millions sterling. The Indian Government

probably did not reckon on a bill like that when they launched the expedition.

But it is also to be noted that it was a costly expedition in human life, and when we hear that some Regiments lost more than half their strength from sickness, and that from fever, dysentery, and scurvy, the losses all round approximated 50 per cent. of the whole force engaged (and it was a very large one), then I think we may congratulate ourselves that since 1823-24 we have "changed all that," and acknowledge with satisfaction the immense strides in organisation and efficiency that have been made since that date by the medical services who now, whatever is the strain put upon them, are able to tend our sick and wounded during a campaign in a manner which was not even attempted during those bygone days of which Major Keene has been telling us.

I believe I am correct in saying that during the Tirah Expedition the percentage of sick to the strength of the whole Force was not more than 4½—and that speaks volumes for the efficiency of the present administration of a Department which sometimes comes in for hard words in peace time, and undeserved harsh criticisms.

In another respect too, our soldiers, when on the war path, are immeasurably better off than they were in those days of which Major Keene has given us such an interesting sketch, and that is in the matter of rations and commissariat arrangements generally. Major Keene has told us that in this campaign the troops were sometimes very hard put to it to find enough to eat, and were in fact sometimes on the verge of starvation, for the authorities seem, on very slender grounds, to have assumed that they would find plenty of everything in Rangoon and its neighbourhood, and that the people would hasten to bring in supplies from the country round, for which assumption they were woefully mistaken. Well, in these present times, the commissariat is, we all know, an admirably organised service. In the recent expeditions on the North-West Frontier the Department was very highly tried, but it stood the test nobly, and though the difficulties were often very great, yet rations were always abundant, and the troops were from start to finish well supplied.

There is only one other point on which I would touch: and that is, you will observe, that the Burmans, like the Afridis, almost always avoided a stand-up fight with our troops which was very wise of them. Nothing however is more trying to the temper and nerve of regulars than to be surrounded by an enemy who in a hundred harassing ways makes his presence constantly felt, but who cannot be got at. But that is the kind of warfare we must expect when we attack uncivilised tribes on their own ground. They know instinctively the right thing to do, and they do it uncommonly well, as we have recently seen for ourselves in Tirah.

I am sure we are all much indebted to Major Keene for breaking the ice, and giving us the first lecture of the season, and I hope his example will soon be followed by other officers now in Simla.

Sir Charles Nairne thanked Major Keene, in the name of the audience, for his interesting lecture. He said the one thing which struck him was the extraordinary way in which we started these enterprises and the enormous losses we suffered. The troops were allowed to do as they pleased, and it was extraordinary how we managed to stay in India at all.

SECOND BURMESE WAR.

BY MAJOR A. KEENE, D.S.O., ROYAL ARTILLERY.

Tuesday, 10th May 1898.

HIS EXCELLENCY SIR C. E. NAIRNE, K.C.B., IN THE CHAIR.

YOUR EXCELLENCY, LADIES, AND GENTLEMEN,

It will be remembered that the first Burmese War ended with the Treaty of Yandabu, made and signed in February 1826, and by it we became possessors of the Provinces of Arakan and Tenasserim. The pride of the Burmese had been humbled, our troops flushed with triumph stood ready within 45 miles of the gates of Ava; the Envoys from that court received our terms almost with gratitude and the King hastened to ratify the Treaty. So impoverished was the Treasury that the Burman commissioners asked leave to pay the indemnity in gold, rubies and jewels instead of cash and the revenues allotted for the maintenance of the Sacred White Elephant were, as we should say, 'misappropriated' for the same purpose. Before taking this extreme step the King himself wrote the Lord White Elephant an apology on a palm leaf, but it is recorded that though he lived for sixty years afterwards, the sagacious animal never forgot the indignity!

But our envoy who reached Ava not long after, in pursuance of the terms of this treaty found all this changed. The Burmese Court had resumed its old arrogance and many were the ways devised to render the existence of our envoy unendurable. He was made to fall on his knees when he entered the palace and to Shekho to the central spire of the Royal Residence. All our ambassadors, down to Sir Douglas Forsyth in 1874, had to remove their shoes before going into the presence of the King, and while there were made to crouch humbly, in adoring attitudes, the unaccustomed nature of which did not tend to make the position less ridiculous. But our representatives endured all these indignities, and their presence at the Court had a good influence as long as *Phaggyidau* reigned. In 1837 he was deposed and his brother Tharawadi succeeded to the throne.

Tharawadi seemed to take a mischievous delight in provoking our residents at his court. Three officers in rapid succession resigned their appointments pleading ill-health. These sudden illnesses afforded much amusement to the King. The last of the residents left Ava in 1840 and the very next year Tharawadi marched on Rangoon threatening to drive the British out of Arakan and Tenasserim.

It must be remembered that Rangoon is in the Province of Pegu and that it still belonged to the Burmese. On arrival at Rangoon however the King's courage seems to have cozed away. He contented himself with casting an enormous bell for the Shwe Dagon Pagoda and then returned to Ava. This bell, 14 feet high and 42 tons in weight, now hangs in a wooden shed on the east side of the Pagoda.

On his return to Ava King Tharawadi gave way entirely to drink and other excesses. In his paroxysms of rage he would shoot or stab a minister or favourite with his own hand. Such a course could only end in a palace revolution of the Asiatic type. In 1845 he was suddenly seized and henceforth disappears from view. Native reports stated that he was smothered in the recesses of the palace.

Tharawadi was succeeded by his eldest son the Pagan Min who was little better than his father. He was a slave to low pleasures such as cock-fighting, gambling and debauchery and lived in constant fear lest he should share the fate of his predecessor. This fear made him atrociously cruel and the tool of his cruelties was his chief minister, a Mahommedan. At last the people of Ava rose in revolt and the minister was sacrificed to secure the safety of the King.

While such confusion reigned in Ava, the governors of outlying provinces were under no supervision. The Governor of Rangoon, with whom we are specially concerned, practised all sorts of enormities and persistently ill-treated the British traders. These laid their complaints before the Governor-General of India, but about this time 1848-49 he was far too busy with the Punjab to attend to Burma. Finally in 1851 Lord Dalhousie found leisure to deal with affairs in Burma. It was high time to do so. In that year the Governor of Rangoon, emboldened by his previous successes in extortion, imprisoned two Captains of British merchant vessels, *Lewis* and *Shepherd* by name, and forced them to pay heavy fines. Lord Dalhousie despatched a squadron under Commodore Lambert to demand immediate reparation.

The Burmese authorities displayed at this period that mixture of pride and weakness which is so characteristic of the people. They remembered the first Burmese War, but attributed their defeat to want of cannon and bad discipline. Since then the King had taken into his pay several European adventurers, among them some deserters from the British Army. It is a regrettable fact that from one regiment alone twelve men, including a sergeant, towards the end of the first war, deserted to the Burmese. It must be said however in

justice to these men that when they deserted they were in garrison at Pegu and peace had been concluded.

The Burmans then had some new guns and a certain amount of drill and training, and they thought that the English knew nothing of these improvements and would be surprised at the discipline of their forces and the superiority of the new guns they had made. Negotiations were protracted by the usual oriental methods, and it was not until the 4th January 1852 that a new governor was sent to Rangoon from Ava, ostensibly to settle the claims of the British Government. This new official only proved more impracticable than the former one, and finally brought matters to a crisis by treating with great insolence a deputation of officers sent by Commodore Lambert to interview him. The latter now saw that resolute action must be taken. He embarked all the British residents in one of his ships and sent them off to Moulmein for safety and then seized one of the Burmese King's vessels that was in the river.

The Burmese Governor now erected some stockades near the bank and dared the Commodore to pass them. The Commodore promptly took his squadron past the stockades. The Burmese opened fire. This was what the Commodore wanted: he returned the fire and soon battered down the stockades. He then proclaimed a blockade of the three principal rivers; that is, the Rangoon and Bassein rivers and the Salween.

War was now inevitable. The Indian Government had been preparing an expedition, and as before Bengal and Madras each furnished a portion of the force destined for operations in Burma. The whole were placed under the command of Major-General Godwin, a veteran, who 26 years before had commanded the 41st Foot during the first war in Burma. In spite of his years this officer was distinguished throughout for his activity. The troops he had at his disposal were as follows:—

18th Royal Irish, 51st King's Own Light Infantry and the 80th Foot.

Five companies of Artillery, the 40th Bengal Infantry, 9th and 35th Madras Infantry and 26th Madras Infantry.

These troops numbered altogether some 6,000 men and had with them 16 guns. It will be seen this was a much smaller force than was employed in the first war.

The royal navy furnished the following ships:—*Rattler*, *Fox*, *Hermes*, *Salamanca* and *Serpent* and one gun boat.

The Indian navy was represented by the *Feroz*, *Moozuffar*, *Zenobia*, *Sesostris*, *Medusa* and *Berenice*, and the Bengal

Marine by the *Tenasserim*, *Pluto*, *Phlegethon*, *Proserpine*, *Enterprise*, *Fire-Queen* and *Mahanuddee*.

The Bengal portion under General Godwin reached the Rangoon river on the 2nd April.

Immediately on his arrival General Godwin finding that the Madras Contingent had not yet appeared filled in the time by taking an expedition against Martaban. This was an important Burmese town situated on the enemy's side of the Salween river, and only a few miles distant from Moulmein to which town it was a constant menace. The capture of Martaban was effected with little trouble and the General returned to the Rangoon river. Here he found the rest of his force arrived from Madras and at once prepared for the attack on Rangoon.

On Easter Sunday, 11th April 1852, the steamships, each having two transports in tow, crossed the Hastings Shoal; then casting off the transports they took up their positions a little below the stockades that protected the town. At 9-30 A.M. the *Moozuffer*, *Sesostris* and *Feroz* began to fire and soon after a terrific report was heard. A lucky shell had exploded a magazine and destroyed a stockade mounting nine 18-pounder guns, well planted. This battery would no doubt have done much harm to our shipping had it not been silenced so early in the day.

H.M.S. *Fox* now steamed up and poured her broadsides into the stockades on both banks of the river. The boats then landed with a party of seamen and marines and a company of the 18th Royal Irish who took and burnt the stockades on the Dalla side of the river. The *Superb* and the *Phlegethon* then steamed up and anchored above Kemmendine to prevent the enemy from sending down fire rafts upon our squadron. By evening the defences for nearly a mile along the Rangoon side of the river had been destroyed by the fire from our ships and a splendid landing place prepared for our force.

On 12th April by 7 A.M. covered again by the fire from our shipping, the 18th Royal Irish, the 51st Light Infantry and some guns under Major Reid of the Bengal Artillery had been landed. The guns began to advance protected by four companies, 51st Light Infantry, but they had not gone far when they came under fire from the enemy's guns, and skirmishers showed themselves in the jungle. This artillery fire was seen to come from a position known to us in the first war as the White House Picquet. It was a large tiled building, probably used as a monastery and stood on an isolated

mound directly in the line of our advance. Both its position and its strength obliged us to attack this post without delay. The fire of our guns was therefore at once turned on it. Major Reid had nearly expended all his ammunition when Major Oakes hurried up with two 24-pounder howitzers. Under the fire of these guns a storming party was formed consisting of four companies, 51st Light Infantry, and some Madras Sappers under Major Frazer. These crept through the jungle towards the White House. On leaving this cover they were again exposed to heavy fire, but gallantly led by Major Frazer in person, the sappers placed their ladders. Frazer himself was the first man to gain the work, the storming party soon followed and carried the stockade, but not without a good deal of loss on our side.

During this fight the enemy were evidently led by Europeans: they left their stockades and threatened our flanks, which they had never been known to do during the first war. A Portuguese (European) was taken prisoner and a deserter from the Madras Artillery killed in the course of the action. After this man's death the enemy's artillery was not well handled. He seems to have been a man of some energy, for he had organised a light field train drawn by Pegu ponies.

It was still quite early, but the heat of the sun was intolerable. Major Oakes was struck down by it as he was working his guns and died the same day. Major Griffith while carrying an order actually fell dead on the road. Three other senior officers had to leave the field. General Godwin decided therefore to hold the ground he had won. The guns from the shipping renewed their cannonade, and in the evening this set fire to a magazine near the great Pagoda which blew up carrying dismay to the defenders. Our guns on land were brought to the front; picquets were placed and under their protection our troops bivouacked on the ground.

The 13th was spent in landing heavy guns and rations, so no advance could be made, but the ships in the river continued their fire day and night, and on the afternoon of the 13th a large party of Burmans with elephants was seen leaving the Pagoda. It was the Governor of Rangoon lately so defiant who now in the usual way of Burman officials was the first to seek safety in flight.

Still the guns roared on. "It was a fine sight," says an eye-witness, "at night: the stockades all burning, the flight of shell and rockets, the flames and bursting of the shell in the distant fort, all formed a grand tableau."

On the morning of the 14th all was ready for an advance. Before describing it however a short study of the ground is necessary. Since the first war the old town had been destroyed and a new one built about $1\frac{1}{4}$ miles inland from the river. This was surrounded by a wall and ditch, and on the north side the great Pagoda had been cleverly worked into the defences to which it formed a sort of keep or citadel.

This famous shrine stands on a mound partly natural and partly artificial which has been cut into two rectangular terraces. The upper terrace is 170 feet above the level of the surrounding country and covering a large area, 300 yards by 230, it forms a fine defensive position. The Pagoda itself is an enormous mass of brickwork rising to a height of 370 feet from a plinth in the centre of the terrace. It is profusely gilt and as Shwe Yoe says "at all times and at all distances it looks imposing and sublime a fitting emblem of the religion whose followers have built it." The terrace is approached by flights of steps on each side.

The Burmans expected us to attack from the south and had fortified that side very strongly, but General Godwin had got a good deal of information regarding their preparations from a Mr. Crisp, a merchant of Rangoon, and he himself knew the ground. He determined to move therefore by a circuitous route and to attack the Pagoda position from the east side. Leaving the bivouac "The Troops," as the General says "in as fine a temper as ever I saw," moved through the jungle in a north-westerly direction, four 9-pounders leading, their flanks, protected by two companies of the 80th Foot. Then came the rest of that regiment with two more guns, followed by the 18th Royal Irish and 40th Bengal Infantry. The 51st Light Infantry and 35th Madras Infantry were in reserve, while the 9th Madras Infantry kept open the communication with the shipping. After advancing about a mile, our troops came under the fire of the great Pagoda, here two of our guns taking up a good position on our left flank came into action. Our troops soon found themselves in close and difficult ground and were in consequence rather crowded, but they had gained their main object, that is, they had turned the fortified town and were opposite the point where the General wished to attack. Major Turton, Commanding the Artillery, now told the General that he had found a good position for his heavy guns and got permission to bring them up. As they were hauled along by hand this took time, but about 10 A.M. they opened fire. General Godwin had intended to bombard the Eastern entrance to the Pagoda till noon, but the enemy's artillery had now got the range of our crowded position and men were falling fast.

He determined therefore to assault at once and formed his storming party. It consisted of a wing of the 80th Foot, two companies, Royal Irish, and two companies, 40th Bengal Infantry, and was led by Captain Latter, the interpreter, as guide. These advanced steadily across the open for about 800 yards followed by the rest of the force. As soon as the steps leading up to the Pagoda were reached, a tremendous rush was made, and had the Burmese guns been now well served, our men might have been swept into the air. But their headlong rush and the fierce cheer with which they came on struck terror into the hearts of the defenders. As the storming party broke in at one gate the Burmese garrison fled by the opposite one. The Immortals as their picked troops were called, conspicuous in their gilt lacquer accoutrements, headed the stampede without even having time to set free some women and children who had been chained to the guns as pledges for the valour of the defenders. Thus for the second time the Shwe Dagon Pagoda fell into our hands. The loss on our side was 17 killed and 132 wounded.

BASSEIN.

The next important occurrence was the capture of Bassein.

On the 17th May General Godwin sailed from Rangoon with a small force composed of 400 men of the 51st Foot, 300 of the 9th Madras Infantry and about 70 sappers.

On the afternoon of the 19th they were opposite the town of Bassein. Our troops landed on a bit of open ground running along the river in front of a fortified Pagoda. Before they were formed up the Burmans opened fire. Our men advanced at once and stormed the position.

But there still remained a well built mud fort on the south of the town and Major Errington,* 51st Light Infantry, was ordered to assault it. His report runs as follows:—“Soon after we left the Pagoda our further progress was impeded by water and low jungle obliging us to take another direction which brought us out on a brick road leading straight on to the north-east angle of the work. When within 15 yards of the position a heavy fire was opened on us by the enemy. I was struck in the thigh which disabled me at once. Lieutenant Rice, Royal Navy, while bravely leading on his men, was hit in the hand. Captain Rice, 51st Light Infantry, while gallantly leading his company up to the assault, was shot through the lower part of the neck. His

* He took with him one company, 51st Light Infantry, two companies, 9th Madras Infantry, some sappers, with ladders, seamen and marines.

place was at once taken by his subaltern, Lieutenant Carter, who followed by his men was the first on the parapet. He was struck by a musket ball and rolled down the exterior slope, but still insisted on being carried into the work. The enemy now gave way in every quarter." The signal to land was made at 4-30 P.M., and by 6 the whole of the enemy's works were in our possession.

Out of the three companies that Major Errington led to the assault two men were killed and twenty-three wounded: short and sharp work.

Leaving a garrison of 500 men in Bassein, the General with his usual activity returned at once to Rangoon.

PROME.

Meanwhile our steamers had been busy in the Irrawady. Captain Brooking in the *Proserpine* explored the river to within 30 miles of Prome, and captured and destroyed 80 boats laden with grain intended for the Burmese troops in that town.

On 9th July Captain Carleton, Royal Navy in command of a small flotilla, attacked the Burmese at Prome and drove them out, capturing 22 guns. Our force found the place almost deserted, but as there were no troops in the steamers we could place no garrison there. This attack seems to have been made without General Godwin's permission, for it is narrated that on hearing of it he threw his wing at his Aide-de-Camp exclaiming "Dash it, Chads there's that fellow Carleton again; he's gone and taken the wind out of my sails."

On September the 16th the General himself started with a properly equipped expedition for the occupation of Prome. It consisted of details of Madras Artillery with two 24-pounder howitzers and four 9-pounders, the 18th Royal Irish, 80th Foot and 35th Madras Infantry. The troops were conveyed on board steamers of the Honourable East India Company. A number of large Burmese cargo boats carried the commissariat and other stores with about 1,000 followers. These were escorted by armed boats from H.M.S. *Fox*, *Winchester* and others.

On the morning of 9th October the flotilla arrived off Prome. Owing to the intense heat nothing was done till the evening. The 80th Foot and two guns were landed at 4-30 P.M. The enemy some 3,500 strong held a position near, but did not resist the landing. A small Pagoda was attacked and carried and held during the night.

At sunrise the next morning the rest of the troops landed to the north of and above the town. The General knew

Prome well and led his troops so skilfully that he completely turned the enemy's position, and as we advanced the Burmans fled leaving the town in our hands. Our only loss was in the storming of the Pagoda under Captain Christie when one man was killed and seven wounded.

The fire from the steamers greatly aided the landing of the troops and demoralized the defence. A party of fifty seamen also landed and dragged the guns along.

Leaving a strong garrison at Prome, General Godwin about 15th October returned to Rangoon, where he was soon busy with preparations against Pegu, the capital of the province of that name.

PEGU.

This place had already once been captured by us with a very small loss, early in June. At that time however the General did not consider that he could spare a garrison to hold the town, and he accordingly handed it over to our allies, the Talaings, the original inhabitants. The Burmans returned very soon after and regained the town. They then set to work to strengthen the defences and collected a large force there. It was now time to recover the important place. On 18th November therefore a force as below embarked on some small steamers:—

300 Bengal Fusiliers, 300 Madras Fusiliers, 400 5th Madras Infantry.

The flotilla was two miles below Pegu on the evening of the 20th. At 4 A.M. on 21st the landing began and by 6-30 our force was ashore, but almost buried in high grass jungle, while the whole country was covered with a dense fog. Captain Latter, the General's interpreter, who had accompanied the force that went up in June, knew the ground and with his aid the General was enabled to find a way of turning the enemy's position. As at Prome the Burmese had made great efforts to defend the direct road leading from the river to their fortified town. The old town of Pegu was a square of about two miles surrounded by high walls and ramparts and encompassed by a moat, 70 yards wide. Led by Captain Latter and a Burmese guide General Godwin decided to force his way along the moat on the south side and to turn the enemy's left. For two hours the force struggled through deep grass and jungle along the edge of the moat, exposed throughout to the enemy's fire. At last a weak place was found in the ramparts and here a storming party was formed under Lieutenant-Colonel Tudor. At a given signal

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they dashed through the mud and water of the moat and gallantly stormed the ramparts. The outer defences were now ours. A halt was made; the guns were with difficulty brought up; the wounded were collected and attended to and then the advance commenced on the great Pagoda which lay in the north-east angle of the ramparts. On reaching the Pagoda a storming party under Major Hill sprang up the steps and soon cleared it of the enemy. Our loss on this occasion was five killed and thirty-four wounded. The gun boats came up the river as our troops advanced and pouring in shell and canister cleared the enemy away from their two defences. The water was too shallow to allow the steamers to come up. On this occasion the General took care to leave a garrison under Major Hill to hold Pegu; he himself returned to his head-quarters at Rangoon. This garrison consisted of 200 Madras Fusiliers, 200 5th Madras Infantry, two guns and some Madras sappers. In addition there were two small gun boats on the river under Captain Mason. The troops under Major Hill held the Pagoda position. The Pagoda itself stood on three terraces; the upper one which contained our men and their stores was a square of about 200 yards with four large entrances approached by a flight of steps on each side. The other two terraces were also squares of 320 and 450 yards respectively. Numerous small Pagodas close to the lower terrace afforded shelter to an enemy within 120 yards. Besides this the country on the north and east commanded the platform on which our troops were lodged.

The Burmans did not leave the small garrison long in peace. On the night of the 24th an attack was made on the gun boats. Major Hill at once prepared to improve his defences. All the troops were set to work and the entrances first barricaded. Friendly natives cut down the long grass with their *dhas*.

On the 27th an attack on the Pagoda was easily repelled.

On the afternoon of the 3rd December a long train of carts appeared in the distance. They were discovered to belong to some Talaings and their families who came in and claimed our protection. This was not denied and in two days a stockade covering two acres of ground was raised close to the Pagoda, and inside this the friendly Talaings were placed with their families, their carts and their buffaloes.

On the 5th a night-attack was made on our position which was continued the next morning, and from that day to the 13th our small force was completely invested by about 6,000 Burmans. Seizing the high ground to the north they kept up a

galling fire on our Troops on their exposed platform, but the Engineer officer got barrels of pork, bags of biscuit and of rice from the commissariat and managed to raise some sort of a protection. On the 12th the glad sound of firing from British war boats was heard in the direction of the river, but the beleaguered garrison were doomed to disappointment. Some boats did indeed reach the usual landing place at Pegu, but in this attempt to force their way through the gallant tars lost thirty killed and wounded out of 150 and had to retire. Early on the 13th the enemy under cover of the fog made a determined rush on the stockade in which the refugees were collected. A picquet which was always kept ready doubled out to the rescue and a severe hand to hand fight ensued, the Burmans and Talaings using their spears, while our picquet was busy with the bayonet. After a while the enemy were beaten off and coming under the fire of our guns on the Pagoda terrace suffered heavily in their withdrawal. Meanwhile four trusty men from among our native allies had come forward and volunteered to take a message to Rangoon, asking for help.

On receiving the information General Godwin himself started with a relieving force which arrived on the 14th December. The plucky little garrison had lost forty-five killed and wounded before this welcome relief arrived. Special thanks of Government were conveyed to Major Hill and the men under him for this gallant defence, and Hill himself was rewarded with the command of the Gwalior Contingent.

On 30th December 1852 a proclamation was issued from our Government at Fort William, by which it was announced that in compensation for the past and for better security in the future the Province of Pegu was formally annexed as a portion of the British territories in the East.

OPERATIONS AGAINST MYAT-HTOON.

But there was still fighting to be done. Towards the end of the year 1852 it had become known that a notorious dacoit leader named Myat-htoon, assisted by one Shwe Ban, had been devastating the country near Rangoon and Dalla. In November a Karen chieftain made head against Shwe Ban and captured thirty of his men. Myat-htoon about this time retired to the jungles near Donabyu. Attacks were made on the Pantanao Creek, a few miles to the south, by boats from our ships in December and January: the last of these on 19th January was repulsed.

It was now obvious that a larger force than these small boating expeditions would be required to deal with Myat-htoon : accordingly 200 seamen and marines from the *Winchester*, *Fox* and *Sphinx*, 300, 67th Bengal Infantry, and two 3-pounder guns left Donabyu on the 3rd February 1853. The next day they found themselves opposite the strongly entrenched position of the robber chief. Unfortunately Captain Loch, who commanded, though an enterprising officer, already decorated with the C.B., fell into the common error of despising his enemy. He even neglected all ordinary precautions such as advance and flanking parties, and thus it happened that the first intimation he had of the proximity of the enemy was a heavy and destructive fire from their stockade. Captain Loch made several gallant attempts to reach the entrenchment, but without avail. In a short time some fifty of our Europeans had been killed or wounded, Loch himself fell and a retreat was then ordered. It was found impossible to carry off the guns without abandoning the wounded, therefore the guns as well as the bodies of the dead were left on the ground and the shattered force with difficulty regained their boats. Our loss on this occasion amounted to three officers killed, including Captain Loch, and eight men, fifty-one Europeans and eighteen sepoys wounded. In this expedition Lieutenant afterwards Sir John Glover received a very severe wound.

When the news of this disaster reached Prome, where the bulk of our force now was, no time was lost in despatching a fresh expedition. This was placed under the orders of Sir John Cheape of the Bengal Engineers, an officer who had served in the first Burmese War and had been Chief Engineer at the siege of Multan. He left on the 18th February, taking with him—

200 men, 18th Royal Irish.

200 „ 51st King's Own Light Infantry.

200 „ 4th Sikhs.

1 company, 67th Bengal Infantry.

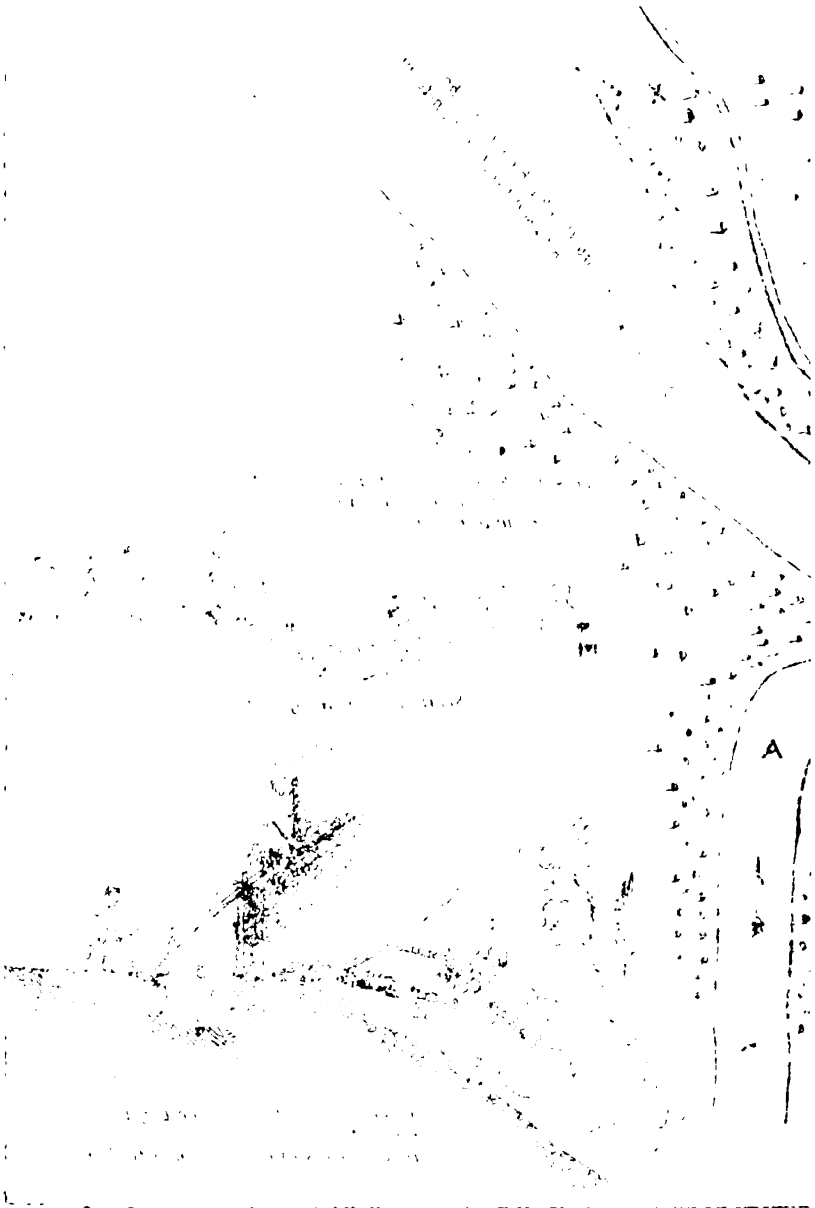
70 sappers and two guns.

This expedition landed at Henzada and taking a large number of carts began its march on Myat-htoon's position. The route however was so difficult that eventually Sir J. Cheape returned to the river, marched down its banks to Donabyu and there waited for reinforcements from Rangoon. These consisting of 300 more men of the 67th Bengal Infantry and 130 of the 80th, chiefly recruits, joined him on the 6th March

U.S. AIR FORCE

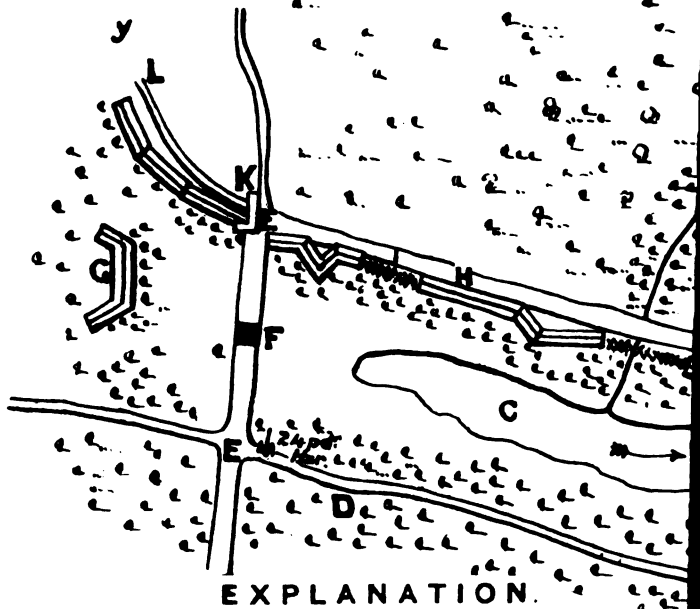
U.S. AIR FORCE

U.S. AIR FORCE



PLAN OF THE BREASTWORK

This



EXPLANATION.

- A. A. Creek; at the dry head of which the Force encamped on the 18th March.
- B. B. A small low Island.
- C. C. Arm of the Creek.
- D. D. Route of the Force on the 19th March.
- E. E. Road by which the breastwork was stormed.
- F. F. Pit about 3 feet deep, dug across the Road by the Enemy.
- G. G. Small detached breastwork commanding both Roads.
- H. H. Strong Log Breastwork and Trenches masked in front by tree Jung strengthened by massive Abattis—Flanks x. y. similarly defended.
- I. I. Four gaps in the timber work; space filled by felled trees and strongly interlaced.
- J. J. Road leading to Shwe-bung-gun direct, from whence a road runs to the Creek to Kun-ta-ni (right) and Kun-ka-zeen (left).
- K. K. Position of the Phlegethon's 3 Pdrs. when recaptured. From K to the road for the Guns, &c., was formed by filling the Trench.
- N. B.—The entire length of the Log Breastwork (from L to L) inclusive of I. I. and exclusive of flank Abattis x and y was 609 good paces between 450 and 480 yards.

and on the 7th he again started. After many days' weary struggling through dense jungle and many small skirmishes, at last on the morning of the 19th our troops were close to Myat-htoon's stronghold. They had already lost a few men in the skirmishes, but many more from cholera.

This stronghold was situated in the midst of thick jungle, the front and left covered by a creek. The only path to it ran straight towards the position till within about 100 yards, then it took a turn and ran parallel with the creek and the front of the position.

At 7 A.M. our column started, the right wing leading and the left in rear of the artillery. The 80th Regiment formed the advance guard, followed by the sappers clearing the way. Unwilling to leave the road after his late experiences of losing himself in the jungles and anxious to bring his men as soon as possible to the attack, Sir John Cheape decided to press on by the path and relied on the well known bravery of his troops to carry the enemy's breast-work on their right as soon as they should reach it. As we came opposite the enemy's left flank the firing commenced; our rockets were brought up, also the 9-pounder, the 4th Sikhs were sent on to support the 80th and the Royal Irish followed, while the sappers worked on at the road. Having made these arrangements the General pushed on to the head of the column. Here he found that Major Armstrong of the Sikhs had been wounded as well as many officers and men, and the fire of the enemy on the path leading to the breast-work was so heavy that our attacks had been repulsed. Ensign Wolseley of the 80th Foot, now Lord Wolseley, had led one of these rushes till within 20 yards of the breast-work when he fell heavily into the concealed pit marked on the plan. To this circumstance he probably owed his life, for had he remained exposed he must have been shot down. His men were beaten back and he managed to rejoin them.

Baffled at this point the 80th and the Sikhs tried to get round to the enemy's extreme right, but the jungle was so thick the men got dispersed and could effect nothing. At this juncture the 18th Royal Irish came up, but the fire of musketry and grape was too severe and they also got scattered and sustained heavy loss. At length in spite of the dense smoke and the deadly fire the General was enabled to ascertain that there was no water or any insurmountable obstacle between us and the breast-work, if the troops could pass

through the enemy's fire, a distance of 20 or 30 yards. The 'assembly' was accordingly sounded and as many men as possible of the right wing were collected under Major Holdich who had now joined the General. At this moment Major Reid, Bengal Artillery, in the most gallant manner, brought up the 24-pounder howitzer. It was dragged through the bushes by hand, the 51st Light Infantry helping, and 'this gem of field pieces,' as an ardent gunner calls it, now opened fire with much effect. But at such close range, about 40 yards from the entrenchment, it was of course much exposed and Major Reid was almost immediately wounded. Lieutenant Ashe however took his place and worked the piece to the end.

Some men from the left wing now joined those of the right who had been collected by Major Holdich and were led by Ensign Wolseley. The whole then dashed at the entrenchment in a manner that nothing could check. Lieutenant Taylor fell here mortally wounded and Ensign Wolseley was also struck down severely wounded in the thigh by a ball from a *jingal*. Many other brave men fell, but the breast-work was carried and the enemy fled in confusion. Lieutenant Trevor, Bengal Engineers, with Corporal Livingstone and Private Preston of the 51st Light Infantry, are mentioned by the General as being the first to enter the entrenchments. The two guns which had fallen into the enemy's hands on 4th February when Captain Loch was killed were here re-captured. They had been worked against us with deadly effect and were well served to the last. In attempting to carry one of them off twelve of the enemy were killed by one discharge from our 9-pounder gun. The losses of Sir J. Cheape's force on this expedition were as follows :—

Killed, 2 officers, 19 men.

Wounded, 12 officers, 93 men.

Among Myat-htoon's followers, estimated at 4,000, the loss was small.

The pursuit of the enemy was taken up by Captain Fytche, Deputy Commissioner of Bassein and afterwards Chief Commissioner of Burma, at the head of a body of Karens who completed the dispersion of Myat-htoon's band.

This was the last of the fighting. Early in 1853 it had become known that the Pagan Meuz had been deposed and Mingdon Min, the father of Theebaw, was taken from a

monastery and placed on the throne. The result of this was all the Burmese generals and officials left Pegu for the headquarters at Ava to join in the scramble for new appointments and the Burmese armies deserted by their leaders soon dispersed.

Meanwhile Pegu, formally annexed by the proclamation of December 1852 was gradually becoming a British Province. The new King made no open resistance to our possession of this part of his dominions, but refused positively to sign any treaty conceding it to us. His reason was that he would not go down to posterity, as the King who had signed away a portion of the empire of Alompra.

When Lord Dalhousie found that the King was impracticable he declared that he did not want any treaty. He issued his own proclamation of peace in a notification, dated Fort William, 30th June 1853, and on his own authority fixed a frontier line running at 19° 30' N. latitude and ordered boundary pillars to be put up along it. Lord Dalhousie himself crossed over to Burma in December 1853, went up the river, and saw the big boundary pillar put up near Meaday. This remained our Frontier Line till the war of 1885-1887.

DRESS AND EQUIPMENT.

Our men still wore their red coats while fighting.

As regards fire-arms, some still carried the percussion old muskets, and two sorts of rifles are mentioned, *viz.* :

The Minié rifle and Lovell's Brunswick rifle with belted bell. The artillery had as yet no rifled guns.

CONDUCT OF THE WAR.

The lessons of the first war were not thrown away on those who organized the expedition for the second war. Lord Dalhousie realized that it was a struggle against climate and made arrangements accordingly. "The care and provision," wrote General Godwin, "which have been made to enable us to meet the weather, are parental. There are to be bake-houses and a constant supply of fresh meat : hospitals at Amherst to relieve me and arrangements to carry the sick thither."

In the actual operations General Godwin made good use of his previous knowledge of Burma, and in his attacks on

Rangoon, Prome and Pegu he led his troops skilfully and avoided those parts that the enemy had most carefully prepared for defence. A civilized enemy of course would not allow a General to, as it were, walk round his lines, looking for a weak place to attack at, but General Godwin very properly adopted his tactics to his enemy. Though he exposed his left flank while leading his troops round the new town of Rangoon, still that flank was protected to a great extent by his ships. The papers of the day made fun of the General's long despatch describing the capture of Prome in which only one man was killed and seven wounded, but he really deserves credit for the skilful arrangement which enabled him to gain his point with so small a butcher's bill.

Throughout this war operations were conducted in a more business-like manner than in the first. The power of steam enabled the General to move his troops with speed and certainty, to superintend each important expedition himself, and then leaving details to subordinate officers, to return quickly to his head-quarters.

The war is also memorable as having given the baptism of fire to two distinguished men—Lord Wolseley and Sir J. Hawley Glover. These two wounded in the same jungle in Burma in 1853 shared the dangers and glories of the Ashanti expedition twenty years after.

One more circumstance must be noted in this war for the first time the gallant Sikhs took the field on our side. Besides the 4th Sikhs whom we have seen well to the front at Myat-htoon's stronghold, the Battalion of Loodhiana was one of the regiments of 3rd Bengal Brigade.

The enemy seem to have arranged their defences with considerable skill. This was especially the case with the dacoit chief Myat-htoon. But the defence made was in nearly every case a purely passive one. The creek that ran in front of Myat-htoon's stronghold illustrates well how such an obstacle, though it impedes the attack, at the same time paralyses the defence. Had the Burmans been able to deliver a counter-attack while Sir J. Cheape made a flank march along the front of their position, it would have gone hard with us.

To compare small things with great the detection of a similar error on the part of his enemy enabled Marlborough to win the battle of Ramilies. In the account of that great struggle we read "the enemy's left wing being planted in rear

of a morass, though safe from all direct attacks upon itself, was necessarily immoveable at least for offensive purposes."

COST OF THE WAR.

This has been estimated at from two to three millions sterling, and the loss of life from disease at about 1,300 British and 2,000 native soldiers. These figures compare very favourably with the first war and the difference may be explained in the following way :—In the first place the second war lasted only half as long as the first. Then again fewer troops were landed in Lower Burma, and there were no costly expeditions into Assam and Arakan. Thirdly, the people of the country came forward more readily to our help, and cattle and labour had not to be imported from India. Finally, the loss of life from disease was much mitigated by the careful preparations insisted on by Lord Dalhousie.

RESULTS OF THE WAR.

The chief result of the war was the annexation of the Province of Pegu. Its inclusion within our boundaries made our territories in Burma more compact. We secured the convenient port of Rangoon, and the delta of the Irrawady and the lower reaches of the Sittang and Salween rivers came completely under our control.

The Burmese chronicles dispose of the second war thus :—

"The foreigner was starving in his own land, so the King bounteously granted him a resting place in the dismal swamps by the sea."

We have made the most of the King's bounty. The rice and teak trade of the east are in British hands and the record of the *Gazetteer of Burma* has been since 1853 a triumphant story of progress. Famines never ravage the fertile southern plains, there is as yet no overcrowding, food is unstinted, men and animals look sleek and happy, peace and plenty smile on all. Free from bigotry, the Burmans, though regretting at times the glories and the barbaric splendours of their Kings of old, live happily under our tolerant rule, and the lands

NOTE.—The brave General Godwin did not long survive the war. Leaving Burma in August 1853 he died only two months after at Simla, and his tombstone in the cemetery there shows that he had attained the age of 69.

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that were conquered at such vast expense of blood and treasure by our fore-fathers, amply repay us now for the long struggles of the first and second Burmese Wars.

General Tyler said—

“YOUR EXCELLENCY, LADIES, AND GENTLEMEN,

I would first of all ask leave to say a few words on the subject of lectures in general. The lecturer has complained of the difficulty of getting any gentleman willing to join in the discussion on his lecture: but I would point out that unless a lecture is printed beforehand and copies circulated, so that some study of the subject is possible, it is by no means easy to speak on the matter at all.

But the preparation of a lecture is a work of research and much labour, and it is disappointing to anyone who has gone to that trouble to find that no one is prepared by intelligent criticism to elucidate points and throw side lights on the central question he has attempted to elucidate and describe. A famous Shakesperean said: ‘A well-favoured man is a gift of fortune, but to write and read comes by nature.’

I have no intention of endeavouring to explain this astounding assertion, but I can bear personal testimony that the composition of a lecture certainly does not come by nature.

The custom in the United Service Institution at home is to circulate copies of the lecture beforehand to such persons as are likely to help in the discussion, and I think that the same custom, which formerly obtained here, but has been discontinued, should be followed.

I think also that the discussion should as far as possible be printed, as was I believe the case formerly.

It is a loss to the military world that the remarks of Your Excellency are not taken down; it is a loss to us all that those of Colonel Hutchinson—whose great knowledge of military history would certainly enable him to give a fresh interest to any lecture on the subject—are not recorded; and it is a loss to society in general that the trenchant and humorous criticism, with which Sir J. Westland delighted us last year, do not appear in the pages of the United Service Magazine.”

Turning to the lecture itself General Tyler said—“One could not fail to wonder how in such a country as that described by the lecturer, and in such a hot and exhausting climate, our men had dragged into position by hand 9-pounders, 12-pounders and 24-pounders, and had brought them up in spite of tremendous difficulties in time to co-operate successfully with the infantry attack. The lecturer had mentioned the great Bell of the Shwe Dagon Pagoda. He had not told them, however, that the British had tried to carry it away to Calcutta. It weighed a trifle of 42 tons, and upset the barge in which they attempted to place it, and went to the bottom of the Irrawady. Our engineers tried to recover it, but failed. The Burmans then asked if they might have a try, and keep it if they got it. Permission was granted, and they very soon recovered the bell,

and hung it again in the big Pagoda, where it might be seen now. Perhaps some engineer would tell us how the Burmans succeeded where we failed."

General Tyler concluded with a reference to the great geographical advantage derived by an audience from the display of such excellent maps* as those provided by the Secretary to the Institution to illustrate the lecture.

Sir James Westland said he had been asked by Colonel Hutchinson to support the proposal of General Tyler, which he did very heartily. He thought it was only due to the gentlemen who undertook the labour involved in the preparation of a lecture such as they had listened to that every effort should be made to add greater interest to the proceedings, and that every opportunity should be given to gentlemen who desired to testify their appreciation of the trouble which the lecturer had taken for their instruction and entertainment by taking more than a merely passive part as hearers. He joined in acknowledging the clearness and skill with which Major Keene had set out the history in two lectures of the first and second Burmese wars. He had had the good fortune to have visited Rangoon and its great Pagoda, and had seen part also of the interior of the country and had been able on this account to follow, with all the greater interest, the scenes of the principal events described.

He believed also that he was in a position to solve the riddle which General Tyler had propounded about the great Bell. The engineers had thought it necessary to construct a huge lifting apparatus, and a carriage for the transport of this Bell: the difficulties they met in doing so were too great and they failed. When the Burmese took the task in hand, what they did was this:—They fixed a heavy wooden frame on the top of the Bell, that is, round the massive loop of metal intended for the hanging of the Bell. This frame was in the shape of a circular disc, of the same diameter as the mouth of the Bell. Having done this they led the whole thing on its side, and all they had to do was to trundle the Bell along on its two ends, the mouth and the frame, as a man rolls a barrel.

He did not intend to offer any criticisms on the subject of the lecture itself, but he was pleased to find that between the first and the second Burmese wars, the Government and the higher military authorities had learned something about the value of the soldiers' lives, and the necessity of taking care of them. The dreadful mistakes of the first war, entered upon with such total absence of preparation, had not been repeated. Though the loss of life was still very great—perhaps needlessly great—yet it was not, as on the first occasion, the direct outcome of culpable mismanagement.

Colonel More-Molyneux said that in past years it had been the custom to print lectures and distribute them beforehand; but very little interest had been taken in the proceedings, and the discussions having fallen somewhat flat, the practice had been discontinued.

* These maps were prepared by Mr. J. Arbery, Head Draftsman of the Intelligence Branch.

The fact was the Institution wanted a paid and permanent Secretary. That was its real want. Under present arrangements, it was most difficult to secure a good Secretary, and when you had got him he was sure to be called away by duty within 12 months or so. Thus there was constant change, and no continuance of system.

The Commander-in-Chief summed up in a few brief remarks. He fully endorsed General Tyler's and Sir James Westland's views about the desirability of printing lectures beforehand and encouraging discussion. He was sure that everyone was very much indebted to Major Keene for his interesting lecture, and that all would unite in according him a hearty vote of thanks.

THE CREATION AND MAINTENANCE OF A RESERVE OF OFFICERS FOR THE INDIAN ARMY.

BY CAPTAIN C. H. CLAY, 43RD GURKHA RIFLES.

' A chain is no stronger than its weakest link.'

The urgent need of a reserve of British Officers for the Native Army has been demonstrated only too clearly during the past few months by the heavy loss of Officers sustained by several regiments of Native Infantry ; though an object lesson of this sort was not necessary to convince those who had studied the question, that the paucity of Officers with our Native troops constituted one of the weakest links in the chain of our defensive armour.

The present establishment of the Indian Staff Corps is barely sufficient to furnish the numbers that would be required on Mobilisation, and even then, the number of Officers with the Field Army would have to be made up at the expense of the regiments detailed for garrison duty in India. There would remain absolutely no reserve from which to fill up the vacancies that must inevitably occur from casualties in the Field, invaliding, etc. Even supposing that not a shot was fired, a Campaign of some months duration must entail some wastage among the Officers as well as among the men, while one general action with a well-armed enemy might easily place a large proportion of the Officers of the regiments engaged, *hors-de-combat*. In several actions during the late fighting, regiments have lost two Officers killed, besides others wounded : and this against an enemy with no artillery or machine guns, and probably inferior in numbers to ourselves. If we are ever to meet a European army in the Field, we must be prepared to meet still heavier losses than these : engagements will be more protracted, and will take place more frequently, and as the strain becomes greater and the losses more serious, increased exertion and still greater self-sacrifice will be necessary on the part of the Officers.

If, then, we commence our Campaign with a number of Officers admittedly too small, and are unable even to maintain them at

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this figure, our position as the Campaign progresses must go from bad to worse: for unlike European regiments, the Native Corps has no internal resources to fall back on, for however brave and intelligent the Native officers may be, they can never replace the British Officers.

Compare the two—a British Cavalry or Infantry regiment proceeds on service with a complement of 28 and 29 Officers* respectively, while a Native Cavalry or Infantry regiment has to be content with a strength of 11 and 13 respectively. Casualties among the former can be replaced from various sources, such as the Militia and Volunteers, retired Officers, Cadets from the Military Colleges, or promotions from the ranks. None of these sources of supply are, however, open to the Staff Corps, for it is as essential for an Officer employed with Native troops to have a knowledge of their language and character, as it is for him to have a training in military duties, and the number of retired Officers of the Indian Staff Corps, of an age suitable for regimental employment is so small, as to be hardly worth taking into consideration.

Thus, in order to keep up the proper complement of British Officers with the Field Army, we should have to resort to one of the following alternatives:—

- (a) To still further denude the regiments detailed for garrison duty, of their officers.
- (b) To allow Officers to volunteer from British regiments, for service with Native corps.
- (c) To accept the services of Indian Volunteers, Civil Officers, Police Officers, or Private Gentlemen.

(a) The first of the above sources of supply could only be made use of to a very limited extent, and could not possibly meet any large wastage.

(b) The second would only provide Officers with little or no knowledge of the language, or of the troops with whom they were to serve; and would, unless arrangements were promptly made for filling up their places, tend to reduce the efficiency of the Corps from which they were taken.

(c) The last method would be undesirable for many reasons, both military and otherwise:—the former because a scratch lot of untrained men would never get the best results out of Native troops, the latter, because, at a crisis such as we are

* Including 1 Medical Officer.

contemplating, the services of Civil and Police Officers could ill be spared from the exercise of their proper functions, and the Volunteers would be already playing their part in setting free certain garrisons which would otherwise have to be maintained.

A Reserve of Officers was instituted in 1894, but the fact that this subject has been
Existing Reserve. selected for the present discussion

points to the conclusion that it has not so far proved an unqualified success.

In putting forward the following proposals for "The
Premises on which proposals are based. Creation and Maintenance of a Reserve of Officers for the Indian Army" the writer has worked on the following premises:—

- (a) That the Reserve should necessarily consist of *trained* Officers, and that they should possess a knowledge of the Native languages, and of Native troops.
- (b) That considerations of expense must be borne in mind, and that, therefore, any scheme, however perfect theoretically, must be put aside, if the expense entailed be such, that the Government of India could not reasonably be expected to incur it.
- (c) That, consequently, any large increase in the peace establishment of Officers is out of the question.
- (d) That the Army in India, both British and Native, must be regarded as one homogeneous body, each portion of which looks to the other for co-operation and support, and that, consequently, any weakness in the one must react unfavourably on the other.

Before proceeding to the consideration of the measures to
Estimate of Numbers required on Mobilisation. be taken for the formation of such a reserve, it will be as well to form a rough estimate of the number of Officers that would be required on Mobilisation, to complete regiments to their authorised strength, and to keep them at that strength. For this purpose, we may assume that the minimum number of Officers with regiments belonging to the Field Army should be, (exclusive of Medical Officers) 10 for Cavalry, and 12 for Infantry; and for regiments detailed for Garrison duty, 9 Officers each, (exclusive of Medical Officers) both for Cavalry and Infantry.

We may next assume that the Field Army will be composed of four Infantry Divisions and five Cavalry Brigades, with say six
Strength of Field Army.

Infantry Battalions,* and three Cavalry Regiments,* as Line of Communication troops, at field service strength. The number of regiments for the above would work out as follows :—

Number of Regiments required—

| | | | |
|----------------------------------|-----|----|------------|
| 4 Infantry Divisions—12 Brigades | ... | 24 | Regiments. |
| Line of Communication troops | ... | 6 | " |
| | | — | |
| Total Native Infantry | ... | 30 | " |
| | | — | |
| 5 Cavalry Brigades | ... | 10 | " |
| Line of Communication troops | ... | 3 | " |
| | | — | |
| Total Native Cavalry | ... | 13 | " |
| | | — | |

Garrison Army. This would leave for garrison duty in India—

104 Infantry Regiments,
30 Cavalry "

including the Hyderabad Contingent, but exclusive of Imperial Service Troops.

Thus to meet regimental requirements, the following number of Officers would be necessary :—

| | | |
|------------------------------|-----------------------|-------|
| Number of Officers required. | 30 Infantry Regiments | |
| | at 12 Officers each | 360 |
| 13 Cavalry Regiments | at 10 Officers each | ... |
| | | 130 |
| 134 Cavalry and Infantry | at 9 Officers each | ... |
| | | 1,206 |
| | | — |
| Total for Regiments | ... | 1,696 |
| | | — |

In addition to the above, Officers would have to be found for the Staffs of the Field Army and Line of Communications, as well as for the Staff and Departments of the Army in India.

Line of Communications, and Field Army Staffs.

* Native Troops.

Assuming that one half of the Staff appointments in the Field would be filled by Staff Corps Officers, we get the following figures:—

| | | |
|---|--|-----------------|
| <i>* Army Staff.</i> | | |
| Field Army. | $\frac{1}{2}$ appointments open to both services ... | 8 |
| | Appointments open to Staff Corps only ... | 4 |
| <i>* 4 Divisional Staffs.</i> | | |
| | $\frac{1}{2}$ appointments open to both services ... | 16 |
| | Appointments open to Staff Corps only ... | 12 |
| <i>* 12 Brigade Staffs.</i> | | |
| | $\frac{1}{2}$ appointments open to both services ... | 24 |
| | Appointments open to Staff Corps only ... | 12 |
| <i>* Cavalry Division Staff.</i> | | |
| | $\frac{1}{2}$ appointments open to both services ... | 4 |
| | Appointments open to Staff Corps only ... | 2 |
| <i>* 5 Cavalry Brigade Staffs.</i> | | |
| | $\frac{1}{2}$ appointments open to both services ... | 10 |
| | Appointments open to Staff Corps only ... | 5 |
| <i>* 4 Staffs of Divisional Troops.</i> | | |
| | $\frac{1}{2}$ appointments open to both services ... | 2 |
| | Appointments open to Staff Corps only ... | 4 |
| <i>† Staff of Line of Communications.</i> | | |
| Line of Communications. | $\frac{1}{2}$ appointments open to both services ... | 8 |
| <i>† Staff at Base.</i> | | |
| Base. | $\frac{1}{2}$ appointments open to both services ... | 10 |
| | | <hr/> 121 <hr/> |

The number of Officers of the Staff Corps employed on the Staff in India is given, in the Budget Estimate for 1897-98, as 250.

To judge from the experiences of the Tirah Expeditionary Force, it would be necessary, in the event of Mobilisation taking place, to allow for at least some fifty additional Officers for Commissariat and Transport duties.

Thus our total requirements would be as under—

| | | | |
|--------------------------------------|-----|-----|-------------------|
| Total Requirements. | | | |
| Regimental Officers | ... | ... | 1,696 |
| Field Army Staff | ... | ... | 121 |
| Staff in India | ... | ... | 250 |
| Extra for Commissariat and Transport | ... | ... | 50 |
| Total | ... | ... | <hr/> 2,117 <hr/> |

* See Field Service Equipment Tables.

† Based on the requirements of the Tirah Expeditionary Force.

To meet these requirements, we have available according to the Budget Estimate for 1897-98, the following number of effective

Numbers available.

Officers :—

| | | | | |
|-----------|-----|-----|-----|-------|
| In Bengal | ... | ... | ... | 681 |
| In Punjab | ... | ... | ... | 732 |
| In Madras | ... | ... | ... | 523 |
| In Bombay | ... | ... | ... | 523 |
| Total | | | | 2,459 |

From this number, however, we must deduct the Officers shewn as in Civil Employ. :—325.

Civil Employ.

This leaves available a total of 2,134, to meet a demand of 2,117 Officers : but to be on the safe side we must leave a margin for sickness, etc., which, calculated at 5 per cent., would reduce the number available by 107, thus leaving 2,027 Officers to fill 2,117 appointments, or a deficit of 90 Officers to start with.

Initial deficit.

Next, to keep up the full complement of Officers, we must allow for casualties, both in the Field and Garrison Army, and therefore a reserve will be necessary, the strength of which we will assume to be 10 per cent. for the Field Army, and 5 per cent. for the Garrison Army.

We can now form a rough estimate of the total strength of the Reserve :—

Estimate of Reserve necessary.

| | | | |
|--|-------|-----|-----|
| To complete the requirements of Regiments and Staffs on Mobilisation | ... | ... | 90 |
| 10 % of the Field Army | 611 | ... | 61 |
| 5 % of the Garrison Army | 1,206 | ... | 60 |
| Total. | Total | | |
| | | ... | 211 |

Assuming, then, that a Reserve of Officers of the above strength is necessary to complete the Native Army to its proper establishment of British Officers, and to maintain it at that strength, the next point for consideration is the sources from which these Officers are to be drawn.

Sources to be drawn from.

A reference to the Army List will shew that upwards of 150 Officers with less than 5 years' Civilian service, are at present shewn as in Civil Employ. Now, it would seem to be only reasonable

that we should look to these Officers as the first line of our Reserve in time of need.

But, as the sudden withdrawal of such a large number of Officers from their Civil, Political, and other duties, might cause considerable embarrassment and inconvenience to their various departments, it would only be possible to make use of their services to a limited extent.

If, however, it were laid down that every Officer entering

Limit of three years.

Civil Employ, would, for three years from the date of leaving his regiment

be regarded as belonging to the Reserve of Officers, and consequently liable to recall to Military Service, we should, without dislocating the work of their departments, provide—at no extra expense to the State—a Reserve of say 50 Officers, available at very short notice, and fully acquainted with their Military duties.

The present Reserve of Officers, consists, according to the Army List, of 20 Officers, so

Strength of present Reserve.

that to complete our Reserve to its required strength, 141 Officers will be required, in addition to the which 50 is proposed to withdraw from Civil Employ.

Now, there are in India, 9 Cavalry Regiments and 52 Infantry Battalions, each with a

British Corps to be drawn on for the 2nd Line.

peace establishment of 29 Officers, amongst whom must be many who

would be only too glad, for pecuniary or other reasons, to exchange into the Indian Staff Corps, if they had the chance; and still more who would give a great deal to increase their chances of seeing Active Service.

This is the class of men whose services, it is suggested, should be utilised to complete the Reserve for the Indian Army. A certain number of Officers should be allowed to volunteer for this service from every British Cavalry and

Conditions of Service.

Infantry Corps in India. Candidates should have not less than three, or more than fifteen years' service, and should have passed the Higher Standard in Hindustani.

Selected Candidates should be posted for one year to

Training.

Native Regiments, as Wing or Squadron Officers, during which period they would receive the same rates of pay and allowances as Staff Corps Officers of similar rank, and be treated in every respect as if they belonged to the Staff Corps.

THE CREATION AND MAINTENANCE OF A RESERVE

These postings should be regulated so as to give a suitable Reserve for Cavalry, Gurkhas, Sikhs, Pathans, etc., so as to ensure as far as possible, that if recalled for duty with the Native Army, Officers should serve with the class of men with which they are familiar.

Regulation of postings. After a year's duty with Native troops, these Officers* would revert to their British Corps, but would be available for appointment to the Native Army, on Mobilisation being ordered. Officers* leaving India with their Corps, or retiring from the Service, would still be regarded as belonging to the Reserve and liable to be called on if their services were required.

Return to Corps. Every Officer called out for service with the Native Army should be eligible for the appointments of Wing or Squadron Commander, or of Wing or Squadron Officer, on Staff Corps rates of pay; and should have the option of either reverting to his British Corps, when his services were no longer required with the Native Army, or of electing for permanent service in the Staff Corps, in which case he should be graded according to his Army rank, his pension service counting from the date of first Commission. He should also be eligible as a subscriber to the Indian Military Service Family Pension Fund, and the Indian Government should make good the donations and subscriptions due to the Fund on his behalf, except those due on account of Wife and Family, which should be paid by the Officer himself.

Terms on which to be recalled. In the event of Officers being recalled from Service or Leave out of India, free passages should be allowed to their destinations.

Officers out of India. Every Officer called out for duty with the Native Army should be eligible for employment on the Army Staff, or in any Department.

Eligibility for appointments. It is not proposed that Engineers or Artillery Officers should be accepted as Candidates for the Reserve, as the former will be more usefully employed in their own proper sphere, and the latter will have to fill up vacancies in the Native Mountain Batteries.

Royal Engineers and Royal Artilleries not eligible.

* All officers completing 25 years' service, to be removed from the Reserve.

If each British Cavalry and Infantry regiment in India

Strength of second Line.

was to spare two of its Officers to strengthen the Native Army, we should obtain 122 Officers as a second line of Reserve, and after the Scheme had been in force for some few years, a certain number of Officers would be available from regiments which had left India, and these we might regard as our third line of Reserve to complete the total numbers required.

Third Line.

General composition.

The Reserve would, then, be composed as under—

| | | |
|--|-----|-----|
| First Line, Officers recalled from Civil Employ | ... | 50 |
| Existing Reserve of Officers | ... | 20 |
| Second Line, Officers from British Corps in India | ... | 122 |
| Third Line, Officers from British Corps out of India | ... | 19 |
| Total | ... | 211 |

As it is of the first importance that the creation of this

Reserve to be formed as soon as possible.

Reserve should take place as soon as possible, it is suggested that two Officers from each British Corps should, on the adoption of the Scheme, be at once selected to go through the year's course with Native Troops. After the first year it would only be necessary to detail sufficient Officers each year, to keep the Reserve up to its full strength, which might be fixed at 250, so as to allow for absentees, etc.

Thus the first year 122 Officers would be trained, the second year 56, and after that probably about 20 Officers a year

Numbers to be trained.

would be sufficient.

It will probably be objected that this scheme would be only robbing the Peter of the British Service, to pay the Paul of the

Possible objections.

Native Service; but on closer examination this objection will be found to be more apparent than real, for the following reasons:—

(a) On Mobilisation being ordered, all leave would, of course, be stopped, and all classes of Instructions discontinued; so that the number of Officers present with their regiments would be greater than it usually is in peace time. This being so, the withdrawal of

Objections discounted.

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one or two Officers per Regiment would not greatly affect the efficiency of the Corps.

- (b) Each Officer withdrawn from a British Corps, means a loss of but a little over $3\frac{1}{2}$ per cent. of its complement of Officers, while each Officer added to a Native Corps, means an increase to its complement of just under $8\frac{1}{2}$ per cent. If, therefore, we assume that our Brigades, with the Field Army, will be composed of two British and two Native battalions, the total increase of efficiency,—supposing that the officers are transferred direct from one to the other,—would be $2\frac{1}{3}$ per cent. As, however, the Corps with the Field army would be the last to be indented on, the increase would in reality be still greater.
- (c) The 2nd Line of Reserve would not be drawn on till the 1st Line had been expended, consequently, at first, only some 20 Officers would be required from British Corps, and these could easily be furnished by those detailed for Garrison duty. As casualties occurred, Corps in India would in the first place be called on, those on Service not being utilised till all the Officers in the 2nd and 3rd Lines of the Reserve had been called out. In this way ample time would be allowed for the Reserve Officers to be replaced from Home, for as has already been pointed out, there is not the same difficulty in filling up vacancies in British, as there is in Native Corps.
- (d) In the event of Officers from Home not being available in consequence of pressure elsewhere, loss of the Command of the Sea, or other causes, the vacancies as they occurred, could be filled up by promotions from the Ranks.

The great difficulty to be encountered in providing for a Reserve of this sort is the double character of the qualifications required. **Difficulty of forming the Reserve.** If military qualifications alone were sufficient, the problem would be comparatively easy of solution ; if again, a knowledge of Natives and of Native Languages were the only requisites, plenty of recruits could be found for the Reserve. The scheme suggested above, provides, it is submitted, for both these essential qualifications, and, as will be shewn further on, at a very small cost, and, though it does so to a certain extent at the expense of the British Service, it is contended that the latter would, in the long run benefit, both by the increased efficiency of the Native

troops on Service, and by the increased knowledge of their ways and methods, that would be obtained by periodically detailing Officers for duty with them. The events of the last few months have shewn pretty conclusively that, in Mountain Warfare at any rate, there are many valuable hints to be gleaned from our Native troops. If, moreover, the truth of the legend at the head of this paper be admitted, as surely it must be admitted, so far at least as it refers to any military organisation,—it is evidently to the interest of the whole body military, to strengthen the weaker member, even at the expense of the stronger.

Cost of the Proposal.

It will be convenient to consider the cost of the scheme,
Estimates of cost. under two separate heads—

(a) The cost of the Creation and Maintenance of the Reserve in time of Peace.

(b) The cost of the Reserve in time of War.

As regards the former, the extra cost to the Government of India, would be for the 1st and 3rd Lines:—*nil*.

In Peace.

For the 2nd Line, the initial cost would be (if trained as suggested above).

Second Line.

First Year.

First year. The difference between British and Staff Corps rates of pay for—

18 Cavalry Officers.

104 Infantry „

This, at the rupee rate per mensem would amount to—

| | British. | Staff Corps. | Difference. |
|----------------------|----------|--------------|-------------|
| Cavalry Captain ... | 473 | 524 | 51 |
| „ Subalterns ... | 305 | 375 | 70 |
| Infantry Captain ... | 415 | 474 | 59 |
| „ Subalterns ... | 256 | 325 | 69 |

Therefore the extra annual cost would be (exclusive of exchange compensation)—

For Cavalry (assuming that no Captains were selected)—

18 x 70 x 12 ... 15,120 Rs.

For Infantry (assuming that 1 Captain to 3 Subalterns were selected)—

| | | | Rs. |
|-------------------------------------|-------|-----|--------|
| $26 \times 59 \times 12$ | ... | ... | 18,408 |
| $78 \times 69 \times 12$ | ... | ... | 64,584 |
| — | | | — |
| 104 | Total | ... | 82,992 |
| — | | | — |
| <i>Second Year.</i> | | | |
| Cavalry:— $4 \times 70 \times 12$ | ... | ... | 3,360 |
| Infantry:— $13 \times 59 \times 12$ | ... | ... | 9,204 |
| $39 \times 69 \times 12$ | ... | ... | 32,292 |
| — | | | — |
| 56 | Total | ... | 44,856 |
| — | | | — |
| <i>Subsequent Years.</i> | | | |
| Cavalry:— $2 \times 70 \times 12$ | ... | ... | 1,680 |
| Infantry:— $4 \times 59 \times 12$ | ... | ... | 2,832 |
| $14 \times 69 \times 12$ | ... | ... | 11,592 |
| — | | | — |
| 20 | Total | ... | 16,104 |
| — | | | — |

As regards the cost of the Reserve in time of War, it is almost impossible to estimate it, as so much would depend on the number of Reserve Officers called on for Service, the number electing to join the Staff Corps permanently, and the number of those invalided, whose pay and pensions would have to be provided for in addition to those of their substitutes. Whatever the cost, however, there can be no doubt but that any expense would be gladly incurred to obtain the requisite number of Officers.

Summary.

The following is a brief summary of the measures proposed:—

Summary.

- (a) To consider all the Officers entering Civil Employ, as belonging to the 1st Line of the Reserve for 3 years.
- (b) Officers already enrolled in the Reserve to be included in the 1st Line.
- (c) Officers from British Corps, serving in India, to be allowed to volunteer for the 2nd Line of the Reserve, and to undergo a course of training with Native Troops, receiving Staff Corps rates of pay while doing so.

- (d) Officers belonging to the 2nd Line leaving India to be enrolled in the 3rd Line.
- (e) Candidates for the 2nd Line to have passed the Higher Standard in Hindustani, and to have not less than 3 or more than 15 years' service.
- (f) Officers to be removed from the Reserve on completing 25 years' service.
- (g) Officers called out for service to have the option of joining the Staff Corps permanently : to be eligible for regimental, staff, or departmental employ : and to get free passages by land and sea to join their appointments.
- (h) The vacancies so caused in British Corps to be filled up as quickly as possible, either by sending out Officers from Home, or by promotions from the ranks.
- (i) The strength of the Reserve to be 250, made up as follows :—
- | | | | | |
|----------|-----|-----|-----|-----|
| 1st Line | ... | ... | ... | 70 |
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| 3rd „ | ... | ... | ... | 30 |
- to meet an estimated requirement of 211 Officers.
(These numbers would of course be liable to alteration, according to circumstances.)
- (j) The second line to be formed as soon as possible, and for this purpose Candidates to be called for, at the rate of 2 Officers per British Cavalry and Infantry Corps, for the first year's training : 56 Officers for the second year's training : and whatever number may appear necessary, for subsequent trainings.
- (k) The estimated expense, in time of peace, is—
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| For the 1st year | ... | ... | 82,992 |
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- (l) The expense in time of war, cannot be estimated.

Conclusion.

It is a well established maxim, that the methods we are forced to resort to in war, should, as far as possible, be foreseen and provided for in time of peace : it would need a bold man to assert, that in the event if our being engaged in a life and

death struggle with an European force, in which we sustained a heavy loss in Staff Corps Officers, the measures that would be resorted to, in order to fill up their places, would be other than those that have been suggested.

The only difference would be,—and that no small one,—that the Officers so detailed would be, perforce, ignorant of the character and language of the men they were sent to command, instead of being qualified by previous experience for their new duties.

This, at a time of stress and trouble, might lead to the most fatal results, for it is precisely at such times that the bond of union between Officers and Men, who know and respect each other, welds a Corps into a band of heroes that may be defeated, but will never be disgraced.

RECENT FRONTIER WARFARE.

BY CAPTAIN F. M. EDWARDS, DEPUTY ASSISTANT QUARTER MASTER
GENERAL, 4TH BRIGADE, TIRAH EXPEDITIONARY FORCE.

For many months past the attention of the British public, and more particularly the attention of the army, has been directed to the stirring events which have been taking place on the North-West Frontier of India.

The difficulties of the campaign against the Afridis, and the heavy losses which have been sustained, have surprised the public, and caused considerable outcry against the conduct of operations.

As active military operations are now practically over, it seems not out of place to consider to what extent the outcry against the conduct of operations is justified, and to deduce from the experiences of the war lessons for our future guidance.

There has been already a great deal written in the papers on the subject, and there will undoubtedly be a great deal more written until the attention of the public is engrossed with some more recent national event.

Much that has been written is apt to mislead, as it comes from the pens of men who are not qualified to be able to form a correct opinion on subjects of a purely military nature.

The chief accusations against the military authorities are, that no sufficient results have been attained by the large force which has for months past been operating in Tirah, and that the heavy losses, which have from time to time been incurred, are the result of bad handling of the troops.

As regards the former accusation, I would ask my readers to consider for themselves what has been done.

The veil has been lifted completely from a country which up to the present had been entered by no European, and by no armed force.

Complete independence has always been the boast of the Afridis, and their proud spirits have probably suffered more by the overrunning of the country than is generally supposed.

The majority of their houses and villages have been burnt, their stock of forage and grain has been consumed, and their

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These postings should be regulated so as to give a suitable Reserve for Cavalry, Gurkhas, Sikhs, Pathans, etc., so as to ensure as far as possible, that if recalled for duty with the Native Army, Officers should serve with the class of men with whom they are familiar.

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Every Officer called out for service with the Native Army should be eligible for the appointments of Wing or Squadron Commander, or of Wing or Squadron Officer, on Staff Corps rates of pay; and should have the option of either reverting to his British Corps, when his services were no longer required with the Native Army, or of electing for permanent service in the Staff Corps, in which case he should be granted according to his Army rank, his pension service commencing from the date of first Commission. He should also be eligible as a subscriber to the Indian Military Service Family Pension Fund, and the Indian Government should make good the deductions and subscriptions due to the Fund on his behalf, except those due on account of Wife and Family, which should be paid by the Officer himself.

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It will probably be objected that this scheme would be only robbing the Peter of the British Service, to pay the Paul of the Native Service; but on closer examination this objection will be found to be more apparent than real, for the following reasons:—

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| 104 | Total | .. | 83,064 |
| — | | | — |
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| Cavalry:—4 × 70 × 12 | ... | ... | 3,360 |
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| 59 × 69 × 12 | ... | ... | 32,272 |
| — | | | — |
| 56 | Total | ... | 44,916 |
| — | | | — |
| <i>Subsequent Years.</i> | | | |
| Cavalry:—2 × 70 × 12 | ... | ... | 1,680 |
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- (a) On Mobilisation being ordered, all leave would, of course, be stopped, and all classes of Instructions discontinued; so that the number of Officers present with their regiments would be greater than it usually is in peace time. This being so, the withdrawal of

one or two Officers per Regiment would not greatly affect the efficiency of the Corps.

- (b) Each Officer withdrawn from a British Corps, means a loss of but a little over $3\frac{1}{2}$ per cent. of its complement of Officers, while each Officer added to a Native Corps, means an increase to its complement of just under $8\frac{1}{2}$ per cent. If, therefore, we assume that our Brigades, with the Field Army, will be composed of two British and two Native battalions, the total increase of efficiency,—supposing that the officers are transferred direct from one to the other,—would be $2\frac{1}{2}$ per cent. As, however, the Corps with the Field army would be the last to be indented on, the increase would in reality be still greater.
- (c) The 2nd Line of Reserve would not be drawn on till the 1st Line had been expended, consequently, at first, only some 20 Officers would be required from British Corps, and these could easily be furnished by those detailed for Garrison duty. As casualties occurred, Corps in India would in the first place be called on, those on Service not being utilised till the Officers in the 2nd and 3rd Lines of the Reserve had been called out. In this way ample time would be allowed for the Reserve Officers to be replaced from Home, for as has already been pointed out, there is not the same difficulty in filling up vacancies in British, as there is in Native Corps.
- (d) In the event of Officers from Home not being available in consequence of pressure elsewhere, loss of the Command of the Sea, or other causes, the vacancies as they occurred, could be filled up by promotions from the Ranks.

The great difficulty to be encountered in providing for a Reserve of this sort is the double character of the qualifications required. If military qualifications alone were sufficient, the problem would be comparatively easy of solution; if again, a knowledge of Natives and of Native Languages were the only requisites, plenty of recruits could be found for the Reserve. The scheme suggested above, provides, it is submitted, for both these essential qualifications, and, as will be shewn further on, at a very small cost, and, though it does so to a certain extent at the expense of the British Service, it is contended that the latter would, in the long run benefit, both by the increased efficiency of the Native

troops on Service, and by the increased knowledge of their ways and methods, that would be obtained by periodically detailing Officers for duty with them. The events of the last few months have shewn pretty conclusively that, in Mountain Warfare at any rate, there are many valuable hints to be gleaned from our Native troops. If, moreover, the truth of the legend at the head of this paper be admitted, as surely it must be admitted, so far at least as it refers to any military organisation,—it is evidently to the interest of the whole body military, to strengthen the weaker member, even at the expense of the stronger.

Cost of the Proposal.

It will be convenient to consider the cost of the scheme, under two separate heads—

(a) The cost of the Creation and Maintenance of the Reserve in time of Peace.

(b) The cost of the Reserve in time of War.

As regards the former, the extra cost to the Government of India, would be for the 1st and 3rd Lines:—*nil*.

In Peace.

For the 2nd Line, the initial cost would be (if trained as suggested above).

Second Line.

First Year.

The difference between British and Staff Corps rates of pay for—

First year.

18 Cavalry Officers.

104 Infantry „

This, at the rupee rate per mensem would amount to—

| | British. | Staff Corps. | Difference. |
|----------------------|----------|--------------|-------------|
| Cavalry Captain ... | 473 | 524 | 51 |
| „ Subalterns ... | 305 | 375 | 70 |
| Infantry Captain ... | 415 | 474 | 59 |
| „ Subalterns ... | 256 | 325 | 69 |

Therefore the extra annual cost would be (exclusive of exchange compensation)—

For Cavalry (assuming that no Captains were selected)—

18 x 70 x 12 ... 15,120 Rs.

For Infantry (assuming that 1 Captain to 3 Subalterns were selected)—

| | | | Rs. |
|--------------------------|-------|-----|--------|
| 26 × 59 × 12 | ... | ... | 18,408 |
| 78 × 69 × 12 | ... | ... | 64,584 |
| — | | | — |
| 104 | Total | ... | 82,992 |
| — | | | — |
| <i>Second Year.</i> | | | |
| Cavalry :— 4 × 70 × 12 | ... | ... | 3,360 |
| Infantry :— 13 × 59 × 12 | ... | ... | 9,204 |
| 39 × 69 × 12 | ... | ... | 32,292 |
| — | | | — |
| 56 | Total | ... | 44,856 |
| — | | | — |
| <i>Subsequent Years.</i> | | | |
| Cavalry :— 2 × 70 × 12 | ... | ... | 1,680 |
| Infantry :— 4 × 59 × 12 | ... | ... | 2,832 |
| 14 × 69 × 12 | ... | ... | 11,592 |
| — | | | — |
| 20 | Total | ... | 16,104 |
| — | | | — |

As regards the cost of the Reserve in time of War, it is almost impossible to estimate it, as so much would depend on the number of Reserve Officers called on for Service, the number electing to join the Staff Corps permanently, and the number of those invalided, whose pay and pensions would have to be provided for in addition to those of their substitutes. Whatever the cost, however, there can be no doubt but that any expense would be gladly incurred to obtain the requisite number of Officers.

Summary.

The following is a brief summary of the measures proposed :—

Summary.

- (a) To consider all the Officers entering Civil Employ, as belonging to the 1st Line of the Reserve for 3 years.
- (b) Officers already enrolled in the Reserve to be included in the 1st Line.
- (c) Officers from British Corps, serving in India, to be allowed to volunteer for the 2nd Line of the Reserve, and to undergo a course of training with Native Troops, receiving Staff Corps rates of pay while doing so.

- (d) Officers belonging to the 2nd Line leaving India to be enrolled in the 3rd Line.
- (e) Candidates for the 2nd Line to have passed the Higher Standard in Hindustani, and to have not less than 3 or more than 15 years' service.
- (f) Officers to be removed from the Reserve on completing 25 years' service.
- (g) Officers called out for service to have the option of joining the Staff Corps permanently: to be eligible for regimental, staff, or departmental employ: and to get free passages by land and sea to join their appointments.
- (h) The vacancies so caused in British Corps to be filled up as quickly as possible, either by sending out Officers from Home, or by promotions from the ranks.
- (i) The strength of the Reserve to be 250, made up as follows:—

| | | | | |
|----------|-----|-----|-----|-----|
| 1st Line | ... | ... | ... | 70 |
| 2nd „ | ... | ... | ... | 150 |
| 3rd „ | ... | ... | ... | 30 |

to meet an estimated requirement of 211 Officers.
(These numbers would of course be liable to alteration, according to circumstances.)

- (j) The second line to be formed as soon as possible, and for this purpose Candidates to be called for, at the rate of 2 Officers per British Cavalry and Infantry Corps, for the first year's training: 56 Officers for the second year's training: and whatever number may appear necessary, for subsequent trainings.
- (k) The estimated expense, in time of peace, is—
- | | | | |
|-------------------|-----|-----|--------|
| | | | Rs. |
| For the 1st year | ... | ... | 82,992 |
| „ „ 2nd „ | ... | ... | 44,856 |
| „ subsequent year | ... | ... | 16,104 |
- (l) The expense in time of war, cannot be estimated.

Conclusion.

It is a well established maxim, that the methods we are forced to resort to in war, should, as far as possible, be foreseen and provided for in time of peace: it would need a bold man to assert, that in the event if our being engaged in a life and

death struggle with an European force, in which we sustained a heavy loss in Staff Corps Officers, the measures that would be resorted to, in order to fill up their places, would be other than those that have been suggested.

The only difference would be,—and that no small one,—that the Officers so detailed would be, perforce, ignorant of the character and language of the men they were sent to command, instead of being qualified by previous experience for their new duties.

This, at a time of stress and trouble, might lead to the most fatal results, for it is precisely at such times that the bond of union between Officers and Men, who know and respect each other, welds a Corps into a band of heroes that may be defeated, but will never be disgraced.

RECENT FRONTIER WARFARE.

BY CAPTAIN F. M. EDWARDS, DEPUTY ASSISTANT QUARTER MASTER
GENERAL, 4TH BRIGADE, TIRAH EXPEDITIONARY FORCE.

For many months past the attention of the British public, and more particularly the attention of the army, has been directed to the stirring events which have been taking place on the North-West Frontier of India.

The difficulties of the campaign against the Afridis, and the heavy losses which have been sustained, have surprised the public, and caused considerable outcry against the conduct of operations.

As active military operations are now practically over, it seems not out of place to consider to what extent the outcry against the conduct of operations is justified, and to deduce from the experiences of the war lessons for our future guidance.

There has been already a great deal written in the papers on the subject, and there will undoubtedly be a great deal more written until the attention of the public is engrossed with some more recent national event.

Much that has been written is apt to mislead, as it comes from the pens of men who are not qualified to be able to form a correct opinion on subjects of a purely military nature.

The chief accusations against the military authorities are, that no sufficient results have been attained by the large force which has for months past been operating in Tirah, and that the heavy losses, which have from time to time been incurred, are the result of bad handling of the troops.

As regards the former accusation, I would ask my readers to consider for themselves what has been done.

The veil has been lifted completely from a country which up to the present had been entered by no European, and by no armed force.

Complete independence has always been the boast of the Afridis, and their proud spirits have probably suffered more by the overrunning of the country than is generally supposed.

The majority of their houses and villages have been burnt, their stock of forage and grain has been consumed, and their

fruit-trees ringed. Although the losses to the Afridis in battle have not been very extensive, yet we know, from their own admission, that on certain occasions they did lose heavily; such as at Dargai on the 18th October, at the Tseri Khandao, and in the Bara Valley on the 13th December.

Their women and children have been forced to remain hidden in the hills and must have endured considerable privations. Their cattle have suffered terribly from want of forage, whilst they have been blockaded out of their usual winter settlements.

That the Afridis have suffered severely is proved by the fact that they are now complying with Government terms, both as regards money fines and rifles. What more could an invading army have done? You cannot inflict heavy losses on an enemy who will not fight you. How can you hope to heavily punish an enemy who never acts in formed bodies, but who is scattered in ones and twos over the hillsides?

The only thing which might have been done and has not been done was to remain for the winter in the heart of Tirah, occupying the Tirah Maidan, the Upper Bara Valley, the Bazaar Valley and perhaps the Waran Valley also.

A winter occupation of Tirah would have caused considerable hardships to the troops, as the cold is known to be excessive and there would have been great difficulty in keeping the troops properly supplied owing to the necessity for crossing mountain ranges, which would at times be covered with snow, by bad roads which are barely fit for the passage of pack transport even under favorable circumstances.

It may be taken that a winter occupation of the country would on the whole not have been wise, and we have probably done the Afridis more damage by occupying their winter settlements than by remaining in Tirah itself.

Although the result has taken some time to accomplish, the Afridis have now practically complied with our demands in addition to having suffered severely during our invasion of their country.

As it is not the policy of Government to annex their country, there is nothing more to be done. With what justice can it be said that the results of the war have been disappointing, except that it is disappointing that the enemy have not been fools enough to stand and meet us in open battle, and thus get a lesson which they would not quickly have forgotten.

The Afridi is however much too cute to play our game, and knows well wherein his own power lies.

As regards the other accusation against the military authorities, *viz.*, the bad handling of the troops, there is something to be said on both sides, but on the whole the losses which have been incurred are only the natural result of operations undertaken by an army, many units of which had had no previous experience of frontier warfare, and no corps of which had had experiences of an exactly similar mode of warfare before.

You can't make war without suffering losses. The fact is the British public, and the army also, have got so accustomed to the small and comparatively bloodless campaigns on the Indian frontiers that when a campaign of greater magnitude takes place, and we are pitted against foes who are above the average of frontier tribesmen, both in cuteness and arms, we find the game of war is not quite so easy as we have been accustomed to expect.

Take the occasion when we experienced our heaviest loss during the campaign, at Dargai on the 20th October; what would have been thought of the loss of 150 men in a European war? It would be considered a mere skirmish, and would be hardly referred to in a history of the campaign.

In the Tirah Campaign we have been opposed to enemies who are almost as well armed as ourselves, and who know how to make the most of the natural features of the country in which they live, and of which they know every yard.

Of course we have suffered losses, and we should experience the same if we repeated the operations, though probably the percentage of loss would be reduced, as we have learnt a thing or two in the art of their mode of warfare.

On the whole the losses have been more due to the want of experience in this particular mode of warfare on the part of the troops themselves, than to bad handling of the troops by the staff.

It must be remembered that our experiences in other recent frontier wars have not been quite the same as on this occasion. At the Malakand and at Chakdara our foes have not been afraid to come to close quarters. They have not to the same extent fought this species of guerilla warfare, nor was the country so much in favour of the tactics of the enemy as in Tirah. It must also be borne in mind that on no other occasion since the last Afghan War has so large a force been put in the field, and that the difficulties of a campaign, especially in a country like Tirah, increase enormously with the size of the force employed. The fact that the tribesmen dared to

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really oppose us in force enabled us to read them a lesson which they won't soon forget at the Malakand, at Chakdara, and to a limited extent also on the Samana.

We began the Tirah Expedition by anticipating the same sort of opposition. At Kharappa we suffered considerable losses, because it was at first considered unsafe to put out picquets in isolated positions where they might be attacked at night by superior numbers of the enemy. We soon found that picquets, well posted on strong natural positions, were safe enough, and were in fact a necessity. In the same way we have suffered losses through nearly always using too many men for flanking parties, and for the rear parties of rear-guards.

The use of strong parties has caused crowding of the troops in confined localities, thus offering the enemy a large target to fire at.

This tendency to use strong parties for duties such as above described is the result of the teaching of previous frontier wars of which the Ghazi rush has been a leading feature.

In the Tirah Campaign we have been treated to a more or less new mode of warfare, which to a certain extent upset our calculations.

Let us now pass on to consider what are the chief lessons to be learnt from the late frontier expeditions. I do not propose to refer to any political or even strategical questions, but to confine myself to matters connected with the equipment and tactical handling of the troops.

In India there is always a tendency to think that the one aim and object to be kept in view is the efficiency of our troops in *frontier* warfare. It is of course necessary that troops in India should be efficient in frontier warfare, but that alone is not enough. A wider view of requirements must be taken. Our Indian Army should be capable of holding its own in any part of the world if required to do so. It should in fact be educated up to the European standard. As a matter of fact, it is educated up to a European standard of efficiency as far as is possible.

Our drill books are based entirely on the experience gained in the last great European wars, and there is comparatively little mention of savage or hill warfare. This perhaps is the reason why some regiments, who have not had actual experience of hill warfare, have shewn up to such disadvantage in the recent operations. A chapter on hill warfare might with

advantage be added to the drill book, but, after all, all that is required is a common-sense adaptation of the principles already laid down in it.

As regards equipment, it would seem desirable that the arrangements for the conveyance of the wounded in hill warfare should be modified. All corps ought to have stretchers, in considerably greater number than at present. The doolie has been found too unwieldy for use on the hill sides.

There should be at least two stretchers per company, and they should be carried by bandsmen, and by a sufficient number of specially enlisted able-bodied men. In British corps, these men might be below the standard as regards height provided they were otherwise really strong men. In the recent operations in Tirah the doolie-bearers were of practically no use, being physically unfit for their work, and consequently fighting men had to carry the dead and wounded, with the result that battalions in the fighting line soon became very weak during an action.

Each man wounded caused six other men to leave the fighting line ; four men to carry the stretcher, and two more to carry the arms of the others.

A propos of the weakness of battalions in the field, it seems most desirable that something should be done to enable corps to turn out stronger than is the case at present. Take the case of the action on the Saran Sar for example : The operation was ordered to be carried out by a brigade of all arms, but what did that brigade really consist of ?

Not more than about 1,200 infantry, which was all that four battalions could put into the field !

Either battalions should go into the field stronger at the commencement of operations, or else special troops should be attached to each brigade (they might be of inferior quality to the remainder), which should find all orderlies, military police, guards over hospitals, Treasure, Commissariat, and similar duties.

On the line of march they might be employed in guarding hospitals and commissariat stores, and for baggage guard generally.

Doolies should never be taken into action, but should be kept together under the charge of a medical officer in some convenient position on the main route, and out of fire.

The remainder of Field Hospitals, including everything that is not wanted with the troops themselves, should accompany the Baggage Column.

The subject of doolie-bearers or Kahars is a most important one. Such men as have been used in the Tirah Campaign are worse than useless; they are an encumbrance to the force. They are utterly undisciplined, and physically unfit to carry out their duties. All doolie-bearers should be specially enlisted men of fine physique, such men for instance as Hazaras. They should form part of the Indian Medical Service, and be maintained as a permanent corps and trained to their duties. In addition to the corps of doolie-bearers a corps of signallers should be maintained. It is not fair on regiments to take away all their best signallers for Brigade and Divisional duties, as they are wanted with their own corps.

The question of transport is a very large one. In the recent operations a large number of absolutely useless animals were purchased and sent up to the front only to be cast before the force began to move into Tirah.

A very large number of the transport drivers sent up to the front were absolutely ignorant of the management of animals, and devoid of all discipline.

As a rule transport officers deserved great credit for making the best of such miserable material.

The good work done by the Gwalior and Jeypur Transport Corps show the desirability of maintaining more of such corps in peace time.

The mule, as usual, proved himself to be infinitely superior to the pony as a beast of burden, for he thrives under conditions which kill a pony.

It was a pitiful sight to see the mortality amongst transport ponies in Tirah.

This being so, it seems very desirable that some further steps should be taken by Government to increase the supply of mules in the country by encouraging mule-breeding.

The good work done by the Gurkha scouts, during the recent operations in Tirah, points to the advisability of raising a few battalions of trained mountaineers, corresponding to the French and Italian Alpine troops.

However much we may try to accustom our infantry to hill warfare, they will never be as good at the game as trained

mountaineers, on the principle that amateurs can never compete with professionals.

The men would naturally be chiefly chosen from hillmen, and they should be lightly equipped with Lee-Metford carbine and light shoes.

There are other points which might be considered, such as the advantage of making every soldier, British and native, carry a Kukri. It is most useful for clearing brushwood round defensive posts, for cutting firewood, and also as a weapon of offence if required.

The necessity of rapidly being able to clear a field of fire cannot be over-estimated in either European or savage warfare.

A portable search-light would be most useful for defending camps, and inflicting loss on the enemy during night-attacks, such as those at Nawagai and Kharappa.

It must be remembered that night-attacks are likely to become a feature in European warfare of the future, and no army can be considered up to date which is not supplied with search-lights.

At least one should be supplied to each brigade in the field. Every man ought to carry on his person a tinned ration, which should never be opened except with the sanction of the Commanding Officer of the Regiment.

The want of such a provision against unforeseen contingencies has caused considerable privations to the troops on more than one occasion, when the supply train has failed to reach them. No other army in the world which is at all up to date is without an "Iron ration," as it is called in Germany.

Passing on to the tactical handling of troops, there can be no doubt that the great failing in the Tirah Campaign was that too many men were used in the firing line on almost every occasion. The practice recommended in the drill book of covering all advances or retirements in the presence of an enemy by a thin screen of skirmishers, or scouts, was much neglected.

The companies in the firing line have worked in extended order, with intervals of from half a pace to one pace between men, but this formation has as a rule offered the enemy a much too conspicuous target. On ordinary occasions a thin line of skirmishers or scouts with intervals of about 8 yards

between each man should have been used to cover the front of each company in the firing line, at a distance of about 300 yards. These men would have offered only a small target to the enemy, would always have been able to take advantage of cover, and would have kept the enemy at a distance by their fire during retirements. If necessary they could quickly be supported by the companies to which they belong.

They should all be marksmen, and men who could be trusted not to waste ammunition by rapid fire against an insufficient target.

They should be trained to scouting duties in peace time, and be selected for their intelligence and activity.

The ordinary attack formation used in the recent operations may be suitable to the attack of positions which are held in force, but it presents too large a target to an enemy who is in force at no particular spot, and who is dotted about here and there all over the hill sides, covering a wide front, and thus bringing a converging fire to bear on any body of troops who may be within range.

Volley firing is often a great waste of ammunition, as there is often no appreciable target to fire at. A well controlled individual fire is probably more efficacious in keeping down the enemy's fire, as it ensures a continual hail of bullets on sangars held by the enemy, whereas with volleys the enemy can fire between the volleys.

In hill warfare, in attacking positions, the advance of the First line can generally with advantage be covered and supported by the long range fire of the Second or Third lines, which, taking advantage of natural positions, can fire over the heads of the First line, and thus keep down the enemy's fire.

In the same way the firing line of the leading companies can cover the advance of their scouts.

In attacking hill-tops where the enemy is sangared or entrenched the troops should spread out and endeavour to work round to the flanks so as to be able to rush the enemy in reverse whilst he is engaged with the men immediately in front of him.

In retiring from commanding positions the companies in the firing line should, when they retire, leave their scouts on the crest to cover their retirement. When the company has a sufficient start the scouts should then follow with all

possible speed. As a general rule no halt should be made till the troops are well clear of the hill. In retiring a company under fire on open ground an officer should be sent back with two or three men to select the next position to be held. The men should then run back to it by twos or threes at a time, and not all together, in order to avoid giving the enemy a target. In the same way during the retirement of larger bodies a Staff Officer should select and point out positions to be held by each unit.

As a general rule during retirements nullahs should be avoided, as troops are apt to get caught at a disadvantage in them. If they are used as the line of advance or retreat, as they frequently must, both banks must always be held by flanking parties.

During retirements troops should keep as much as possible on high ground so as to retain a command of view and fire.

As regards outposts, it may be remarked that as a rule it is necessary to hold any commanding points, within effective rifle range, in order to prevent the enemy from sniping the camp.

Picquets should be strong and consist generally of a whole company.

No detached sentries or groups should be employed as in European warfare. The ground round should be cleared of brushwood and abattis and sangars constructed as far as possible.

Picquets should be always posted in strong natural positions, and they should have orders (on night duty) not to retire from their position into camp, if it can possibly be avoided, as they mask the fire of the camp and run a great risk of being shot themselves by those in camp.

The picquet must always leave camp in sufficient time to ensure its reaching its position before dark, and to have time to make the post defensible. In positions where the surrounding country is flat and open, where the enemy is known to be in the habit of making hand to hand attacks in force by night, and when no natural positions exist, it may be advisable not to have out any outposts at all, but to trust entirely to inlying picquets. On no occasion during the Tirah Campaign did the Afridis make any attack in force against our picquets.

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really oppose us in force enabled us to reach them a loss which they won't soon forget at the Malakand, at Chakdara, and to a limited extent also on the Samana.

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In India there is always a tendency to think that the main aim and object to be kept in view is the efficiency of our troops in *frontier* warfare. It is of course necessary that troops in India should be efficient in frontier warfare, but that alone is not enough. A wider view of requirements must be taken. Our Indian Army should be capable of holding its own in any part of the world if required to do so. It should therefore be educated up to the European standard. As a matter of fact, it is educated up to a European standard of efficiency as far as is possible.

Our drill books are based entirely on the experience gained in the last great European wars, and there is comparatively little mention of savage or hill warfare. This perhaps is the reason why some regiments, who have not had actual experience of hill warfare, have shewn up to such disadvantage in the recent operations. A chapter on hill warfare might well

advantage be added to the drill book, but, after all, all that is required is a common-sense adaptation of the principles already laid down in it.

As regards equipment, it would seem desirable that the arrangements for the conveyance of the wounded in hill warfare should be modified. All corps ought to have stretchers, in considerably greater number than at present. The doolie has been found too unwieldy for use on the hill sides.

There should be at least two stretchers per company, and they should be carried by bandsmen, and by a sufficient number of specially enlisted able-bodied men. In British corps, these men might be below the standard as regards height provided they were otherwise really strong men. In the recent operations in Tirah the doolie-bearers were of practically no use, being physically unfit for their work, and consequently fighting men had to carry the dead and wounded, with the result that battalions in the fighting line soon became very weak during an action.

Each man wounded caused six other men to leave the fighting line ; four men to carry the stretcher, and two more to carry the arms of the others.

A propos of the weakness of battalions in the field, it seems most desirable that something should be done to enable corps to turn out stronger than is the case at present. Take the case of the action on the Saran Sar for example : The operation was ordered to be carried out by a brigade of all arms, but what did that brigade really consist of ?

Not more than about 1,200 infantry, which was all that four battalions could put into the field !

Either battalions should go into the field stronger at the commencement of operations, or else special troops should be attached to each brigade (they might be of inferior quality to the remainder), which should find all orderlies, military police, guards over hospitals, Treasure, Commissariat, and similar duties.

On the line of march they might be employed in guarding hospitals and commissariat stores, and for baggage guard generally.

Doolies should never be taken into action, but should be kept together under the charge of a medical officer in some convenient position on the main route, and out of fire.

The remainder of Field Hospitals, including everything that is not wanted with the troops themselves, should accompany the Baggage Column.

The subject of doolie-bearers or Kahars is a most important one. Such men as have been used in the Tirah Campaign are worse than useless; they are an encumbrance to the force. They are utterly undisciplined, and physically unfit to carry out their duties. All doolie-bearers should be specially enlisted men of fine physique, such men for instance as Hazaras. They should form part of the Indian Medical Service, and be maintained as a permanent corps and trained to their duties. In addition to the corps of doolie-bearers a corps of signallers should be maintained. It is not fair on regiments to take away all their best signallers for Brigade and Divisional duties, as they are wanted with their own corps.

The question of transport is a very large one. In the recent operations a large number of absolutely useless animals were purchased and sent up to the front only to be cast before the force began to move into Tirah.

A very large number of the transport drivers sent up to the front were absolutely ignorant of the management of animals, and devoid of all discipline.

As a rule transport officers deserved great credit for making the best of such miserable material.

The good work done by the Gwalior and Jeypur Transport Corps show the desirability of maintaining more of such corps in peace time.

The mule, as usual, proved himself to be infinitely superior to the pony as a beast of burden, for he thrives under conditions which kill a pony.

It was a pitiful sight to see the mortality amongst transport ponies in Tirah.

This being so, it seems very desirable that some further steps should be taken by Government to increase the supply of mules in the country by encouraging mule-breeding.

The good work done by the Gurkha scouts, during the recent operations in Tirah, points to the advisability of raising a few battalions of trained mountaineers, corresponding to the French and Italian Alpine troops.

However much we may try to accustom our infantry to hill warfare, they will never be as good at the game as trained

mountaineers, on the principle that amateurs can never compete with professionals.

The men would naturally be chiefly chosen from hillmen, and they should be lightly equipped with Lee-Metford carbine and light shoes.

There are other points which might be considered, such as the advantage of making every soldier, British and native, carry a Kukri. It is most useful for clearing brushwood round defensive posts, for cutting firewood, and also as a weapon of offence if required.

The necessity of rapidly being able to clear a field of fire cannot be over-estimated in either European or savage warfare.

A portable search-light would be most useful for defending camps, and inflicting loss on the enemy during night-attacks, such as those at Nawagai and Kharappa.

It must be remembered that night-attacks are likely to become a feature in European warfare of the future, and no army can be considered up to date which is not supplied with search-lights.

At least one should be supplied to each brigade in the field. Every man ought to carry on his person a tinned ration, which should never be opened except with the sanction of the Commanding Officer of the Regiment.

The want of such a provision against unforeseen contingencies has caused considerable privations to the troops on more than one occasion, when the supply train has failed to reach them. No other army in the world which is at all up to date is without an "Iron ration," as it is called in Germany.

Passing on to the tactical handling of troops, there can be no doubt that the great failing in the Tirah Campaign was that too many men were used in the firing line on almost every occasion. The practice recommended in the drill book of covering all advances or retirements in the presence of an enemy by a thin screen of skirmishers, or scouts, was much neglected.

The companies in the firing line have worked in extended order, with intervals of from half a pace to one pace between men, but this formation has as a rule offered the enemy a much too conspicuous target. On ordinary occasions a thin line of skirmishers or scouts with intervals of about 8 yards

between each man should have been used to cover the front of each company in the firing line, at a distance of about 300 yards. These men would have offered only a small target to the enemy, would always have been able to take advantage of cover, and would have kept the enemy at a distance by their fire during retirements. If necessary they could quickly be supported by the companies to which they belong.

They should all be marksmen, and men who could be trusted not to waste ammunition by rapid fire against an insufficient target.

They should be trained to scouting duties in peace time, and be selected for their intelligence and activity.

The ordinary attack formation used in the recent operations may be suitable to the attack of positions which are held in force, but it presents too large a target to an enemy who is in force at no particular spot, and who is dotted about here and there all over the hill sides, covering a wide front, and thus bringing a converging fire to bear on any body of troops who may be within range.

Volley firing is often a great waste of ammunition, as there is often no appreciable target to fire at. A well controlled individual fire is probably more efficacious in keeping down the enemy's fire, as it ensures a continual hail of bullets on sangars held by the enemy, whereas with volleys the enemy can fire between the volleys.

In hill warfare, in attacking positions, the advance of the First line can generally with advantage be covered and supported by the long range fire of the Second or Third lines, which, taking advantage of natural positions, can fire over the heads of the First line, and thus keep down the enemy's fire.

In the same way the firing line of the leading companies can cover the advance of their scouts.

In attacking hill-tops where the enemy is sangared or entrenched the troops should spread out and endeavour to work round to the flanks so as to be able to rush the enemy in reverse whilst he is engaged with the men immediately in front of him.

In retiring from commanding positions the companies in the firing line should, when they retire, leave their scouts on the crest to cover their retirement. When the company has a sufficient start the scouts should then follow with all

possible speed. As a general rule no halt should be made till the troops are well clear of the hill. In retiring a company under fire on open ground an officer should be sent back with two or three men to select the next position to be held. The men should then run back to it by twos or threes at a time, and not all together, in order to avoid giving the enemy a target. In the same way during the retirement of larger bodies a Staff Officer should select and point out positions to be held by each unit.

As a general rule during retirements nullahs should be avoided, as troops are apt to get caught at a disadvantage in them. If they are used as the line of advance or retreat, as they frequently must, both banks must always be held by flanking parties.

During retirements troops should keep as much as possible on high ground so as to retain a command of view and fire.

As regards outposts, it may be remarked that as a rule it is necessary to hold any commanding points, within effective rifle range, in order to prevent the enemy from sniping the camp.

Picquets should be strong and consist generally of a whole company.

No detached sentries or groups should be employed as in European warfare. The ground round should be cleared of brushwood and abattis and sangars constructed as far as possible.

Picquets should be always posted in strong natural positions, and they should have orders (on night duty) not to retire from their position into camp, if it can possibly be avoided, as they mask the fire of the camp and run a great risk of being shot themselves by those in camp.

The picquet must always leave camp in sufficient time to ensure its reaching its position before dark, and to have time to make the post defensible. In positions where the surrounding country is flat and open, where the enemy is known to be in the habit of making hand to hand attacks in force by night, and when no natural positions exist, it may be advisable not to have out any outposts at all, but to trust entirely to inlying picquets. On no occasion during the Tirah Campaign did the Afridis make any attack in force against our picquets.

With the exception of the few points above referred to, there was very little to find fault with in the tactical handling of the troops.

All that it is necessary for officers to thoroughly realise is, that you must make your dispositions suit the particular case with which you have to deal.

The drill books of the present day allow great latitude of action and full advantage should be taken of this.

'TEMPORA MUTANTUR.'

BY A STAFF OFFICER IN MADRAS.

The following few notes made from Madras General Orders now nearly 100 years old following on Colonel Neville's delightful article on the same subject may be interesting as showing how very much Indian Service in those days differed from that of the present time. As these notes were taken at random, they may now be conveniently classified under a few general heads, *vis.*—

Officers, Courts-martial, Native Officers, Dress, marches and transport, native languages, drill, Canteens, etc.

They are all issued from Choultry plain, then apparently the Head Quarters of the Coast Army.

Under the heading "Officers" a Horse Guards General Order republished gives an interesting table of minimum service to qualify for promotion. The King directs that no officer is to be promoted to Captain until he has three years' service as a subaltern, or to Major with less than seven years, of which two must be in the rank of Captain.

No officer is to hold a staff appointment until he has been one year a Captain, from which we may infer that to be Brigade-Major an officer must have not less than four years service, not a very rigorous qualification. This however discredits the old Scotch nursery story of the "Major" "Greetin for his parritch."

In 1806 officers messes were sanctioned and a monthly allowance of 42 Star pagodas monthly when marching, and 21 when in cantonments is given to each man. This probably is the original precedent on which Government allowances for messes is founded.

In the same year it is ordered that Surgeons of regiments are to contract for the feeding of the men in hospital, and also for other supplies, beds, linen, etc., surely a premium on having a full hospital, and a perennial source of temptation to make money at the expense of the patients. Surgeons do not, however, seem to have ever been given compensation for the withdrawal of these rights, on similar lines to Colonels allowances said to have been given originally to make up for the loss of similar privileges.

A glimpse of the elastic consciences prevalent in the age of the pagoda tree is got from a G. O. laying down

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in 1810, without any comment on the immorality of the practice, that the Commander-in-Chief disapproves of officers who drew horse allowance feeding their horses on the public grain issued for troop horses. We can imagine how the mounted officers went about saying that the service was going to the devil, when this bombshell was exploded on them.

The last notes I have on officers are an extract from a G. O. "Warning" Captain Newman and Lieutenant Johnstone for sending a disrespectful message to their Colonel through the Adjutant.

Also an order forbidding the practice of putting brother officers in "Coventry," the word "Coventry" being officially recognised as thoroughly as the modern word "boycotting" or the Gladstonian Euphemism of "exclusive dealing."

The next heading is "Courts-martial," and the irresistible impression given is of the extraordinary severity shown to non-commissioned officers and men, though the officers are much more leniently used, seldom in fact getting more than a public reprimand. Sentences on soldiers of 1,000 lashes are not uncommon, appalling terms of solitary confinement accompanying sentences of imprisonment, and men are sent to work on the roads in chains. I pick out from amongst others the cases of Dusserat Pande who for desertion and taking with him a regimental coat gets 500 lashes.

"Sepoy Sew Golam Sing" for irregularly relieving a sentry and not reporting the robbery of a Treasure chest gets 700 lashes.

Privates John Boulger and John Ward receive six months and twelve months solitary confinement respectively, the former for desertion and the latter for disabling himself. Private Micheal Macguire is sentenced to 1,000 lashes for loading his musket with intention to take his commanding officer's life, and for using violent and insulting language to that officer. In 1823 Naique Naigloo is sentenced to 1,000 lashes, and to be dismissed the service for striking with his fist Subadar Veerapah.

In the same year Private James Leslie, King's Rifle Regiment, driven wild when at drill by the perpetual "as you weres" of Lance-Corporal Hunter, so far forgot himself as to say "no more of your as you weres here. I'll blow your brains out" and snapped a musket loaded with a regimental button at him. The musket missed fire. Private Leslie was condemned to be shot to death and the sentence was carried out.

Next we have in 1830 Cornet Ferrars sentenced to be dismissed the service for having beaten and maltreated a

native in a shameful and outrageous manner. The court recommends him to mercy. The confirming Officer however says that as this officer has, in the last two years, been four times tried by court-martial and twice before sentenced to dismissal the sentence each time being remitted, he cannot consider the recommendation on this occasion.

There are some interesting orders on dress.

The style of dress, especially if it is true that there were no punkahs but hand punkahs, is quite enough to account for the unpopularity of the Indian Service and the large mortality amongst Europeans.

In 1818 the Commander-in-Chief notices with regret that officers off duty are some times seen going about without swords. Uniform with swords is to be worn on all occasions. Fatigue uniform is to be worn only when actually on fatigue, on all other occasions *full dress* !

In 1827 white jackets and white cravats are not to be worn out of quarters. Broadcloth is the material (in Madras in May !) of which all officers' clothing is to be made. If this order is not obeyed officers will always have to appear in parade dress. We next come to a most extraordinary freak of fashion amongst the "golden youth" of the army.

In 1829 the Commander-in-Chief "noticed with great disgust a feminine practise adopted by some officers of wearing combs in their hair, and dangling fancy curls, unbecoming the appearance of a soldier," he desires that a more male costume be adopted.

Great efforts were made to get officers to study the native languages. Every officer who passed in Hindustani had the fact published in G. O.s with long comments on the familiarity he had shown with the idioms and difficulties of the language. One Lieutenant Seton being especially praised because his translations and *viva voce* were not only correct but extremely elegant.

On one occasion the board of examiners, while reporting that the candidate could not make himself intelligible at all, yet was "persuaded" that his failure was more from nervousness than ignorance. This equals even the complaisance; and far exceeds the honesty of the Lower Standard Hindustani board of fifteen years ago. In spite of this 8 officers in 1829 are reported as absolutely ignorant of any vernacular though they had been drawing pay as interpreters for years.

From officers to native officers, who, though there was no order of British India did not go without their reward. In

1823 Subadar "Sied Hossein" is presented in orders with a sword, a horse and horse allowance of Rs. 42.

In 1809 Subadar Mahomed Sarwar and Subadar Noor Sahib of one of the native cavalry regiments are presented in G. O.s with a palanquin each, and an allowance of 20 Star pagodas a month to keep it up. They apparently had got beyond riding on parade but served on in their palanquins.

In 1811 a similar presentation was made to Subadar Ali Beg of the same regiment. We begin to wonder whether all the native officers of this regiment came to parade in their palanquins.

In 1808 a General officer was allowed 16 bullocks to carry his dining tent and 16 to carry his sleeping tent.

Field officers going on foreign service were allowed 5 tons of baggage, captains 3 tons and subalterns $1\frac{1}{2}$ tons. The latter thus went to the wars with about 44 maunds of kit. What a subject for reflection for the modern lieutenant on 40 lbs. (including tentage) on a Himalayan hill-top!

Rules for Canteens were instituted in 1814. In 1824 the Governor General in Council notifies that any European man or woman found supplying liquor to soldiers without authority will be sent to England. This must have given an opening to any impecunious loafer who wanted to get sent home free.

With two more extracts these rambling notes may close. In 1818 a letter is published from the Governor General in India enclosing a letter from an assistant Surgeon, giving the symptoms and treatment for a new and alarming epidemic, hitherto unknown, which has broken out in the centre division of the grand army. From the symptoms this is evidently the first record of cholera which was formerly unknown in India.

Lastly, a circumstance is mentioned which must have gone far to reconcile men in those days to a residence in India even when undergone without punkahs and in broadcloth with a sword. The rupee in 1825 was worth two shillings and six pence, nearly double its present value.

**SOME FOREIGN ARTICLES OF SPECIAL INTEREST,
CONTRIBUTED BY THE INTELLIGENCE BRANCH,
TRANSLATED BY F. T.**

AËRIAL TORPEDOES AND TORPEDO GUNS.

Hiram Maxim, the gifted Mechanician, recommends the construction of guns which will throw aërial torpedoes to a great distance. This idea is not new, for the pneumatic guns, by Zalinski, Graydon, etc., have been constructed for the same purpose, and a few batteries of these dynamite guns have been erected at Sandy Hook and San Francisco. But whereas these guns can throw shells, weighing 81 kg. (178·2 lbs.), to a distance of only $1\frac{1}{2}$ miles, Maxim proposes to fire shells, weighing 1,200 kg. (2,640 lbs.), with a charge of 500 kg. (1,100 lbs.) powder from his torpedo guns and torpedo mortars, to a distance of 9 miles. Maxim, for the present, proposes the construction of the above-mentioned guns, and recommends the armament of each torpedo cruiser to consist of one of the guns and two mortars. These ships should be protected by strong enough armour plates, so that they could resist the projectiles of the heaviest guns, including those of the new English 30·5 cm. (12") wire gun and similar guns. He calculates that a ship of this description could be built for £100,000, and thus ten of them could be constructed in place of one 1st class battleship. These views are very sanguine as will be seen. The torpedo gun of 60 cm. (23·62") calibre is as long as an English 41 cm. (16·14") gun of 111,000 kg. (110 tons), but with a length of 13·31 m. (43·9') shows a weight of only 46,000 kg. (45·17 tons) and must have weaker walls.

The mortar is only half as long. There are four kinds of projectiles, two of which are charged with gun-cotton and the other two with picric acid. A new propellant is recommended, called Maximite after the inventor, but which has been little tested, if at all. The gun-cotton projectiles, which have the initial charge and fuze in the middle and are 60 cm. (28·62") in diameter, can hold 500 kg. (1,100 lbs.) gun-cotton. The other projectile of 30 cm. (11·81") calibre is put into the gun by guiding rings, and holds 112·5 kg. (247·5 lbs.) gun-cotton.

Both the projectiles, with picric acid, have a calibre of 60 cm. (23'62"), and are distinguishable from the others of same calibre, in that the fuze is fixed at the base. These, again, although of the same weight, *viz.*, 1,250 kg. (2,750 lbs.) have different strengths of metal. One contains 500 kg. (1,100 lbs.) and the other 629 kg. (1,383'8 lbs.) of explosive matter. Maxim proposes to fire these heavy projectiles a distance of 9 miles, and projectiles with 1,000 kg. (2,200 lbs.) of bursting charge to a distance of 5 miles.

In the same way, mortars having a projectile, with a bursting charge of 500 kg. (1,100 lbs.) and 1,000 kg. (2,200 lbs.), he proposes to fire to a distance of 3 and 2 miles, respectively. Nothing is known about the accuracy of these guns.

The management of a gun, 44 feet long, and of two others, 22 feet long, on a comparatively small ship, will always be very difficult. The weight of this gun and these mortars is considerable, and is only suitable for large cruisers. If the ship is intended to be armour-plated, as stated above, plates of nickel steel of at least 10" must be used. The ship's capacity will consequently be diminished.

The ship should have great speed, therefore powerful engines, which again demand a great deal of space. To build such a ship for £100,000 is impossible; it is more likely to cost £500,000. Even then it is an open question whether one would prefer such a cruiser at such a price to the ones now in existence.

from the "Deutsche Heeres-Zeitung."

THE EFFECTS OF SMALL BORE RIFLES.

The war between Greece and Turkey will perhaps show us, whether or not, the chief military powers have gone too far in diminishing the calibre of rifles.

Dr. Delorme sent a report to the Medical Academy in regard to the unfortunate event at Fourmies. In this report he makes the statement that "some wounds in the head, chest, and abdomen had a horrible appearance, but all wounds on the limbs were light and healed easily." The wounded declared that they only experienced a slight shock, some said that they

felt something like a blow, and others did not notice at all that they had been hit. Some, who were severely wounded, remained standing and could walk. These observations were made on forty-two wounded, of whom eight died. In his concluding remarks Dr. Delorme declared that the 11 mm. bullet gave a far greater shock than the 8 mm. He also affirms that the wounds caused by a 8 mm. bullet would always heal very quickly, provided no vital part was struck.

Officers, who have taken part in the Dahomey Expedition, report that the Lebel bullets did not generally stop the rush of the enemy. A very large number of severely wounded men, shot right through the body, managed to get up to the French line, and broke down only some time after the attack.

Similar reports came from Madagascar. Marine Infantry officers affirm that the Gras rifle had a far more murderous effect in Tonkin and the Soudan than the Lebel rifle in Madagascar.

In Chitral, where the English tried the Lee-Metford rifle (M-1889, calibre 7.7 mm., weight of bullet 13.8 gr., and initial velocity 610 m.), it was often noticed that men who were struck did not fall down. The natives universally called this weapon the "child's rifle" on account of its shortness and its little effect.

The "Revue d'Infanterie" reports that, in the Malakand fight, a native was struck by six bullets—on the anklebone, on the knee, on the hips, and on the head. This last wound was caused by the bullet entering at the back of the neck and going out of the mouth after smashing several teeth. This native had strength enough to walk to an English dressing-station where he had his wounds dressed, and in a very short time they healed. The medical men, attached to the expedition, have observed that even severe wounds did not cause the wounded to break down; on the contrary, they were still able to walk and even to fight some time after being hit.

After the enterprise of the freebooter Jameson in Transvaal, the wounded of both parties lay in the hospital at Krugersdorf. The doctors affirmed that the wounds caused by the small bore rifles were very smooth, that the small entrance holes closed of their own accord, and that the loss of blood was very little. One of the wounded at Krugersdorf was shot through the lungs, yet in a few days the wound healed. When these facts became known in England, there was a great commotion, and many newspapers regretted that the Martini-Henry rifle had been so hastily replaced by the Lee-Metford rifle.

The Italian Paravicino-Carcano rifle, M-1891, calibre 6·5 mm. (·256"), weight of bullet 10·45 gr., initial velocity about 710 m., has been called by the Abyssinians as "the rifle that does not kill." The Italian military papers have several times pointed out that the new Italian rifle may have been one of the causes of General Baratieri's disaster; and as a result of the experience gained thereby, the question is brought forward whether the rush of Menelik's troops would not have been broken up by the Vetterli rifle. The murderous effects of the Carcano rifle do not appear to be more terrible than the English rifle.

The Italian Colonel Nava, who was a prisoner for a certain time in Abyssinia, has been able to observe a large number of wounded. He remarked that all wounds, which were not in vital parts, healed very quickly, and he has thereby concluded that the new weapon of the Italian Infantry is far less effective than the old. He reported also that the Abyssinians had called the Italian rifle "the rifle which does not kill." This nickname is significant, for it is surely the first time that a weapon of war has been thus styled. An officer of Menelik's Army, who came to Europe a short time ago, and was an eye-witness of the various fights in this campaign, fully agrees with the views expressed by Colonel Nava. Comparing the losses sustained by both parties in the battle of Abba Carima, he puts the loss of the Italians at 14,000 killed and very few wounded, whilst the Abyssinians' loss was only 4,600 killed and a very large number of slightly wounded.

He concludes from this that the new Italian rifle cannot cause any fear, whilst the Vetterli and Gras rifles have caused awe-inspiring effects under his own eyes. A man, hit by a bullet from one of the last two rifles, receives a great shock, turns round a couple of times, and then drops to the ground.

During their campaign against China, the Japanese were armed with Murata rifles of two different patterns. One of these patterns had a calibre of 8 mm., and in regard to weight and initial velocity it fired a bullet similar to the Lebel.

An American officer visited the Chinese wounded in the hospital at Tientsin, and states that the wounds caused by the 8 mm. Murata rifle had extraordinary small entrance and exit holes which healed very quickly. The English doctor, who attended these wounded, stated that nine out of ten of them would have died on the spot if they had been struck by 10 mm. or 11 mm. rifles.

The "Revue d'Infanterie" mentions also the effects of the Roumanian rifle, the Mannlicher, calibre 6.5 mm., weight of bullet 10 gr., initial velocity 745 m.

The Roumanian Commission, charged with the trial of this rifle, caused it to be fired at living horses at 1,400 m. On examining the wounds, it was found that they were very severe when the bullet struck a bone or an artery. On the other hand, the wounds in soft parts were very slight and much less severe than those caused by bullets of medium calibres. These wounds would have been quite insufficient to suddenly stop a cavalry charge.

The military powers are sure to watch, with great interest, the events of the present Greek-Turkish war, especially as regards the killed and wounded.

To arrest an enemy, a rifle should possess, above all, the power of placing a wounded man *hors de combat*.

In France everybody thought that the 8 mm. calibre rifle was not small enough. Since 1886 trials are being made with rifles of 7 mm. and 6.5 mm. calibre. Are the defenders of such small bore rifles convinced of the correctness of their views?

from the "Deutsche Heeres-Zeitung."

CUBA : THE EFFECTS OF THE .31" MANSEER BULLET.

The following is extracted from Dr. H. W. Danforth's report, who served with the insurgents in Cuba :—"I saw a man who had been shot through the head about a year ago, and who is apparently quite well, but suffers a little from gout. I saw another man, Major Osgood of the Artillery, who was shot through the middle of the forehead, and he managed to live for three hours ; if it had been an ordinary bullet, he would probably not have lived more than as many seconds.

A third man was hit only $\frac{1}{8}$ " above the heart, and for three hours I could not find out whether the heart had been grazed. This man was admitted into hospital and was discharged after seven days. A fourth man received a bullet in the upper thigh, which went right through the bone and out again at the other side. This man asked to be allowed to

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All that it is necessary for officers to thoroughly realise is that you must make your dispositions suit the particular case with which you have to deal.

The drill books of the present day allow great latitude of action and full advantage should be taken of this.

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in 1810, without any comment on the immorality of the practice, that the Commander-in-Chief disapproves of officers who drew horse allowance feeding their horses on the public grain issued for troop horses. We can imagine how the neglected officers went about saying that the service was going to the devil, when this bombshell was exploded on them.

The last notes I have on officers are an extract from a G.O. "Warning" Captain Newman and Lieutenant Johnstone for sending a disrespectful message to their Colonel through the Adjutant.

Also an order forbidding the practice of putting British officers in "Coventry," the word "Coventry" being officially recognised as thoroughly as the modern word "boasting" or the Gladstonian Euphemism of "exclusive dealing."

The next heading is "Courts-martial," and the impression given is of the extraordinary severity shown to non-commissioned officers and men, though the officers are much more leniently used, seldom in fact getting more than a public reprimand. Sentences on soldiers of 1000 lashes are not uncommon, appalling terms of solitary confinement accompanying sentences of imprisonment, and men are sent to work on the roads in chains. I pick out from amongst others the cases of Dusserat Pandé who for desertion and taking with him a regimental coat gets 500 lashes.

"Sepoy Sew Golam Sing" for irregularly relieving a sentry and not reporting the robbery of a Treasure chest gets 700 lashes.

Privates John Boulger and John Ward receive six months and twelve months solitary confinement respectively, the former for desertion and the latter for disabling himself. Private Michael Macguire is sentenced to 1000 lashes for leaving his musket with intent on to take his commanding officer's life, and for using violent and insulting language to that officer. In 1823 Narque Nagloo is sentenced to 1000 lashes and to be dismissed the service for straggling with 1500 Subidar Veerajah.

In the same year Private James Leslie, King's R. M. Regiment, driven wild when at drill by the perpetual "as you weres" of Lance-Corporal Hunter, so far forgot himself as to say "no more of your as you weres here, I'll show you what I can do it" and snatched a musket loaded with a regimental cartridge from him. The musket misfired, Private Leslie was ordered to be shot to death and the cartridge was carried out.

Next we have in 1830 Corret Ferraris sentenced to be dismissed the service for having beaten and maltreated a

native in a shameful and outrageous manner. The court recommends him to mercy. The confirming Officer however says that as this officer has, in the last two years, been four times tried by court-martial and twice before sentenced to dismissal the sentence each time being remitted, he cannot consider the recommendation on this occasion.

There are some interesting orders on dress.

The style of dress, especially if it is true that there were no punkahs but hand punkahs, is quite enough to account for the unpopularity of the Indian Service and the large mortality amongst Europeans.

In 1818 the Commander-in-Chief notices with regret that officers off duty are some times seen going about without swords. Uniform with swords is to be worn on all occasions. Fatigue uniform is to be worn only when actually on fatigue, on all other occasions *full dress* !

In 1827 white jackets and white cravats are not to be worn out of quarters. Broadcloth is the material (in Madras in May !) of which all officers' clothing is to be made. If this order is not obeyed officers will always have to appear in parade dress. We next come to a most extraordinary freak of fashion amongst the "golden youth" of the army.

In 1829 the Commander-in-Chief "noticed with great disgust a feminine practise adopted by some officers of wearing combs in their hair, and dangling fancy curls, unbecoming the appearance of a soldier," he desires that a more male costume be adopted.

Great efforts were made to get officers to study the native languages. Every officer who passed in Hindustani had the fact published in G. O.s with long comments on the familiarity he had shown with the idioms and difficulties of the language. One Lieutenant Seton being especially praised because his translations and *viva voce* were not only correct but extremely elegant.

On one occasion the board of examiners, while reporting that the candidate could not make himself intelligible at all, yet was "persuaded" that his failure was more from nervousness than ignorance. This equals even the complaisance; and far exceeds the honesty of the Lower Standard Hindustani board of fifteen years ago. In spite of this 8 officers in 1829 are reported as absolutely ignorant of any vernacular though they had been drawing pay as interpreters for years.

From officers to native officers, who, though there was no order of British India did not go without their reward. In

1823 Subadar "Sied Hossein" is presented in orders with a sword, a horse and horse allowance of Rs. 42.

In 1809 Subadar Mahomed Sarwar and Subadar Noor Sahib of one of the native cavalry regiments are presented in G. O.s with a palanquin each, and an allowance of 20 Star pagodas a month to keep it up. They apparently had got beyond riding on parade but served on in their palanquins.

In 1811 a similar presentation was made to Subadar A. Beg of the same regiment. We begin to wonder whether all the native officers of this regiment came to parade in their palanquins.

In 1808 a General officer was allowed 16 bullocks to carry his dining tent and 16 to carry his sleeping tent.

Field officers going on foreign service were allowed 5 tons of baggage, captains 3 tons and subalterns $1\frac{1}{2}$ tons. The latter thus went to the wars with about 44 mands of kit. What a subject for reflection for the modern lieutenant on 40 lbs. (including tentage) on a Himalayan hill-top!

Rules for Canteens were instituted in 1814. In 1824 the Governor General in Council notifies that any European man or woman found supplying liquor to soldiers without authority will be sent to England. This must have given an opening to any impecunious loafer who wanted to get sent home free.

With two more extracts these rambling notes may close. In 1818 a letter is published from the Governor General in India enclosing a letter from an assistant Surgeon, giving the symptoms and treatment for a new and alarming epidemic, hitherto unknown, which has broken out in the centre division of the grand army. From the symptoms this is evidently the first record of cholera which was formerly unknown in India.

Lastly, a circumstance is mentioned which must have gone far to reconcile men in those days to a residence in India even when undergone without punkahs and in broad day with a sword. The rupee in 1825 was worth two shillings and six pence, nearly double its present value.

**SOME FOREIGN ARTICLES OF SPECIAL INTEREST,
CONTRIBUTED BY THE INTELLIGENCE BRANCH.
TRANSLATED BY F. T.**

AËRIAL TORPEDOES AND TORPEDO GUNS.

Hiram Maxim, the gifted Mechanician, recommends the construction of guns which will throw aërial torpedoes to a great distance. This idea is not new, for the pneumatic guns, by Zalinski, Graydon, etc., have been constructed for the same purpose, and a few batteries of these dynamite guns have been erected at Sandy Hook and San Francisco. But whereas these guns can throw shells, weighing 81 kg. (178·2 lbs.), to a distance of only $1\frac{1}{2}$ miles, Maxim proposes to fire shells, weighing 1,200 kg. (2,640 lbs.), with a charge of 500 kg. (1,100 lbs.) powder from his torpedo guns and torpedo mortars, to a distance of 9 miles. Maxim, for the present, proposes the construction of the above-mentioned guns, and recommends the armament of each torpedo cruiser to consist of one of the guns and two mortars. These ships should be protected by strong enough armour plates, so that they could resist the projectiles of the heaviest guns, including those of the new English 30·5 cm. (12") wire gun and similar guns. He calculates that a ship of this description could be built for £100,000, and thus ten of them could be constructed in place of one 1st class battleship. These views are very sanguine as will be seen. The torpedo gun of 60 cm. (23·62") calibre is as long as an English 41 cm. (16·14") gun of 111,000 kg. (110 tons), but with a length of 13·31 m. (43·9') shows a weight of only 46,000 kg. (45·17 tons) and must have weaker walls.

The mortar is only half as long. There are four kinds of projectiles, two of which are charged with gun-cotton and the other two with picric acid. A new propellant is recommended, called Maximite after the inventor, but which has been little tested, if at all. The gun-cotton projectiles, which have the initial charge and fuze in the middle and are 60 cm. (28·62") in diameter, can hold 500 kg. (1,100 lbs.) gun-cotton. The other projectile of 30 cm. (11·81") calibre is put into the gun by guiding rings, and holds 112·5 kg. (247·5 lbs.) gun-cotton.

Both the projectiles, with picric acid, have a calibre of 60 cm. (23.62"), and are distinguishable from the others of same calibre, in that the fuze is fixed at the base. They are, again, although of the same weight, 712 and 1,250 kg. (2,750 and 3,450 lbs.), have different strengths of metal. One contains 500 kg. (1,100 lbs.) and the other 629 kg. (1,383.8 lbs.) of explosive matter. Maxim proposes to fire these heavy projectiles at a distance of 6 miles, and projectiles with 1,000 lb. (2,200 lbs.) of bursting charge to a distance of 5 miles.

In the same way, mortars having a bursting charge of 500 kg. (1,100 lbs.) and 1,180 kg. (2,600 lbs.), he proposes to fire to a distance of 3 and 2 miles, respectively. Nothing is known about the accuracy of these guns.

The management of a gun, 44 feet long, and of the others, 22 feet long, on a comparatively small ship, would be very difficult. The weight of this gun and these mortars is considerable, and is only suitable for large cruisers. If the ship is intended to be armour-plated, as stated above, plates of nickel steel of at least 10" must be used. The ship's capacity will consequently be diminished.

The ship should have great speed, therefore powerful engines, which again demand a great deal of space. To build such a ship for £100,000 is impossible; it is more likely to cost £500,000. Even then it is an open question whether one would prefer such a cruiser at such a price to the cruisers in existence.

from the "Deutsche Heeres-Zeitung"

THE EFFECTS OF SMALL BORE RIFLES

The war between Greece and Turkey will perhaps show us, whether or not, the chief military powers have gone too far in diminishing the calibre of rifles.

Dr. Delorme sent a report to the Medical Academy in regard to the unfortunate event at Fourmies. In this report he makes the statement that "some wounds in the head, chest, and abdomen had a horrible appearance, but all wounds on the limbs were light and healed easily." The wounded declared that they only experienced a slight shock, some said that they

felt something like a blow, and others did not notice at all that they had been hit. Some, who were severely wounded, remained standing and could walk. These observations were made on forty-two wounded, of whom eight died. In his concluding remarks Dr. Delorme declared that the 11 mm. bullet gave a far greater shock than the 8 mm. He also affirms that the wounds caused by a 8 mm. bullet would always heal very quickly, provided no vital part was struck.

Officers, who have taken part in the Dahomey Expedition, report that the Lebel bullets did not generally stop the rush of the enemy. A very large number of severely wounded men, shot right through the body, managed to get up to the French line, and broke down only some time after the attack.

Similar reports came from Madagascar. Marine Infantry officers affirm that the Gras rifle had a far more murderous effect in Tonkin and the Soudan than the Lebel rifle in Madagascar.

In Chitral, where the English tried the Lee-Metford rifle (M-1889, calibre 7.7 mm., weight of bullet 13.8 gr., and initial velocity 610 m.), it was often noticed that men who were struck did not fall down. The natives universally called this weapon the "child's rifle" on account of its shortness and its little effect.

The "Revue d'Infanterie" reports that, in the Malakand fight, a native was struck by six bullets—on the anklebone, on the knee, on the hips, and on the head. This last wound was caused by the bullet entering at the back of the neck and going out of the mouth after smashing several teeth. This native had strength enough to walk to an English dressing-station where he had his wounds dressed, and in a very short time they healed. The medical men, attached to the expedition, have observed that even severe wounds did not cause the wounded to break down; on the contrary, they were still able to walk and even to fight some time after being hit.

After the enterprise of the freebooter Jameson in Transvaal, the wounded of both parties lay in the hospital at Krugersdorf. The doctors affirmed that the wounds caused by the small bore rifles were very smooth, that the small entrance holes closed of their own accord, and that the loss of blood was very little. One of the wounded at Krugersdorf was shot through the lungs, yet in a few days the wound healed. When these facts became known in England, there was a great commotion, and many newspapers regretted that the Martini-Henry rifle had been so hastily replaced by the Lee-Metford rifle.

Both the projectiles, with picric acid, have a calibre of 60 cm. (23.62"), and are distinguishable from the others of same calibre, in that the fuse is fixed at the base. These again, although of the same weight, 777.1250 kg. (2,750 lbs.), have different strengths of metal. One contains 500 kg. (1,100 lbs.) and the other 625 kg. (1,383.8 lbs.) of explosive matter. Maxim proposes to fire these heavy projectiles at a distance of 6 miles, and projectiles with 1,000 lb. (2,200 lbs.) of bursting charge to a distance of 5 miles.

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The Italian Paravicino-Carcano rifle, M-1891, calibre 6·5 mm. (.256"), weight of bullet 10·45 gr., initial velocity about 710 m., has been called by the Abyssinians as "the rifle that does not kill." The Italian military papers have several times pointed out that the new Italian rifle may have been one of the causes of General Baratieri's disaster; and as a result of the experience gained thereby, the question is brought forward whether the rush of Menelik's troops would not have been broken up by the Vetterli rifle. The murderous effects of the Carcano rifle do not appear to be more terrible than the English rifle.

The Italian Colonel Nava, who was a prisoner for a certain time in Abyssinia, has been able to observe a large number of wounded. He remarked that all wounds, which were not in vital parts, healed very quickly, and he has thereby concluded that the new weapon of the Italian Infantry is far less effective than the old. He reported also that the Abyssinians had called the Italian rifle "the rifle which does not kill." This nickname is significant, for it is surely the first time that a weapon of war has been thus styled. An officer of Menelik's Army, who came to Europe a short time ago, and was an eye-witness of the various fights in this campaign, fully agrees with the views expressed by Colonel Nava. Comparing the losses sustained by both parties in the battle of Abba Carima, he puts the loss of the Italians at 14,000 killed and very few wounded, whilst the Abyssinians' loss was only 4,600 killed and a very large number of slightly wounded.

He concludes from this that the new Italian rifle cannot cause any fear, whilst the Vetterli and Gras rifles have caused awe-inspiring effects under his own eyes. A man, hit by a bullet from one of the last two rifles, receives a great shock, turns round a couple of times, and then drops to the ground.

During their campaign against China, the Japanese were armed with Murata rifles of two different patterns. One of these patterns had a calibre of 8 mm., and in regard to weight and initial velocity it fired a bullet similar to the Lebel.

An American officer visited the Chinese wounded in the hospital at Tientsin, and states that the wounds caused by the 8 mm. Murata rifle had extraordinary small entrance and exit holes which healed very quickly. The English doctor, who attended these wounded, stated that nine out of ten of them would have died on the spot if they had been struck by 10 mm. or 11 mm. rifles.

The "Revue d'Infanterie" mentions also the effects of the Roumanian rifle, the Mannlicher, calibre 6.5 mm., weight of bullet 1.5 gr., initial velocity 745 m.

The Roumanian Commission, charged with the trial of this rifle, caused it to be fired at living horses at 1,400 m. On examining the wounds, it was found that they were very severe when the bullet struck a bone or an artery. On the other hand, the wounds in soft parts were very slight and much less severe than those caused by bullets of medium calibres. These wounds would have been quite insufficient to suddenly stop a cavalry charge.

The military powers are sure to watch, with great interest, the events of the present Greek-Turkish war, especially as regards the killed and wounded.

To arrest an enemy, a rifle should possess, above all, the power of placing a wounded man *hors de combat*.

In France everybody thought that the 8 mm. calibre rifle was not small enough. Since 1886 trials are being made with rifles of 7 mm. and 6.5 mm. calibre. Are the defenders of such small bore rifles convinced of the correctness of their views?

from the "Deutsche Heeres-Zeitung."

CUBA : THE EFFECTS OF THE .31" MANSER BULLET.

The following is extracted from Dr. H. W. Danforth's report, who served with the insurgents in Cuba :—"I saw a man who had been shot through the head about a year ago, and who is apparently quite well, but suffers a little from gout. I saw another man, Major Osgood of the Artillery, who was shot through the middle of the forehead, and he managed to live for three hours ; if it had been an ordinary bullet, he would probably not have lived more than as many seconds.

A third man was hit only $\frac{1}{8}$ " above the heart, and for three hours I could not find out whether the heart had been grazed. This man was admitted into hospital and was discharged after seven days. A fourth man received a bullet in the upper thigh, which went right through the bone and out again at the other side. This man asked to be allowed to

x

remain on his horse and to take further part in the fight. He kept his breeches open and put plasters on the inner and outer wound, and in ten minutes he took part in the attack. If this had been an ordinary bullet, the man's leg would have had to be amputated.

from the "Deutsche Heeres-Zeitung."

CORRESPONDENCE.

To

The Secretary,

United Service Institution

of India.

13th June 1878.

DEAR SIR,

With reference to Major Yate's paper on "First aid to the Wounded," which appeared in the Journal for April 1878, in which that officer suggests that Bandsmen be authoritatively instructed in "stopping bleeding, bandaging and applying temporary splints to fractured bones," might I venture to point out that under paragraph 1790-A., Army Regulations, India, Volume II, Part II, as amended by Military Department No. 1210-A., dated 8th August 1857, all bandsmen of Native battalions are required to be instructed not only in stretcher drill, but also in rendering first aid to the wounded.

Believe me,

Yours faithfully,

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Major J. A. Ferrier, D.S.O., R.E.

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Prize Essay Gold Medallists.

- 1872.....ROBERTS, Lieut.-Col. F. S., V.C., R.A.
 1873.....COLQUHOUN, Capt. J. A. S., R.A.
 1874.....COLQUHOUN, Capt. J. A. S., R.A.
 1879.....ST. JOHN, Maj. O. B. C., R.E.
 1880.....BARROW, Lieut. E. G., S.C.
 1882.....MASON, Lieut. A. H., R.E.
 1883.....COLLEN, Maj. E. H. H., S.C.
 1884.....BARROW, Capt. E. G., S.C.
 1887.....YATE, Lieut. A. C., S.C.
 1888.....MAUDE, Capt. F. N., R.E.
 YOUNG, Maj. G. F., S.C. (specially awarded a silver medal).
 1889.....DUFF, Capt. B., S.C.
 1890.....MAGUIRE, Capt. C. M., S.C.
 1891.....CARDEW, Lieut. F. G., S.C.
 1893.....BULLOCK, Maj. G. M., Devon. Regt.
 1894.....CARTER, Capt. F. C., Northumberland Fusiliers.
 1895.....NEVILLE, Lieut.-Col. J. P. C., S.C.
 1896.....BINGLEY, Capt. A. H., S.C.
 1897.....NAPIER, Capt. G. S. F., 2nd Bn. Oxfordshire Light Infantry.
 1898.....MULLALLY, Major H., R.E.
 CLAY, Capt. C. H., S.C. (specially awarded a silver medal).

MacGregor Memorial Silver Medallists.

- 1889.....BELL, Col. M. S., V.C., R.E. (specially awarded a gold medal).
 1890.....YOUNGHUSBAND, Capt. F. E., K. Dn. Gds.
 1891.....SAWYER, Maj. H. A., S.C.
 1891.....KAMZAN KHAN, Havildar, 3rd Sikhs.
 1892.....VAUGHAN, Capt. H. B., S.C.
 1892.....JAGGAT SINGH, Havildar, 19th P. I.
 1893.....BOWER, Capt. H., S.C. (specially awarded a gold medal).
 1893.....LAZALDAD KHAN, Dafadar, 17th B. C.
 1894.....O'SULLIVAN, Maj. G. H. W., R.E.
 1894.....MULL SINGH, Sowar, 6th B. C.
 1895.....DAVIES, Capt., Oxfordshire Light Infy.
 1895.....GUNGA DYAL SINGH, Havildar, 2nd B. I.
 1896.....CROKERILL, Lieut. G. K., 28th P. I.
 1896.....GHULAM NABI, Private, Q. O. Corps of Guides.
 1897.....SWAYNE, Capt. E. J. E., 16th B. I.
 1897.....SHAHZAD MIR, Dafadar, 11th B. I.
 1898.....WALKER, Capt. H. B., Duke of Cornwall's Light Infantry.
 1898.....ADAM KHAN, Havildar, Guides Infantry.

MOSBY'S RANGERS.

LECTURE BY LIEUTENANT-COLONEL F. M. RUNDALL, D.S.O., COMMANDING 1ST BATTALION, 4TH GURKHA RIFLES.

Before giving an account of what the Federals termed Mosby's Guerillas, and describing the part they played in the great Civil War of America, I should like it to be clearly understood that I do not in any way take as my text "Go and do thou likewise." I have selected the subject simply because it is one which teems with an interest peculiarly its own, and the daring deeds performed by mere handfuls of Mosby's men are surrounded by a halo of romance which charms alike the casual as well as the military reader. I shall simply relate what these rangers did, and the effect produced by their raids on the Federals, leaving it open to discussion what lessons can be learnt from them, and whether a modification of their tactics would or would not be practicable and useful. Mosby's Rangers were a band of Irregular Cavalry and formed part of the Confederate or Southern Forces.

The period of which this lecture treats is from about March 1863 to April 1865; and the theatre where Mosby's men played their part lies in Virginia, and is bounded roughly by the following limits; the line of the Potomac on the North and East; the Rappahannock on the South and South-West; and the Shenandoah Valley on the West.

For the subject-matter of this lecture I am indebted to a Book called "Mosby's Rangers," written by one of themselves, a Mr. James J. Williamson, and published by Ralph B. Kenyon, New York. As I shall frequently refer to Mr. Williamson, I would ask you to remember who he is—one of Mosby's Rangers.*

"John Singleton Mosby was born at Edgmont, Virginia, in 1833. He graduated at the University of Virginia, and commenced life as a lawyer, and when war broke out between North and South he was engaged in the practice of law. He first entered the Confederate Army as a private in a Cavalry Regiment, and was not long after chosen as an independent

* For the Map I am indebted to the American War Office, who most kindly gave me, some two years ago, twenty-five excellent Official Maps and Plans of the theatre of the War of 1861-65.—F. M. R.

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TRANSLATED BY F. T.**

AËRIAL TORPEDOES AND TORPEDO GUNS.

Hiram Maxim, the gifted Mechanician, recommends the construction of guns which will throw aërial torpedoes to a great distance. This idea is not new, for the pneumatic guns, by Zalinski, Graydon, etc., have been constructed for the same purpose, and a few batteries of these dynamite guns have been erected at Sandy Hook and San Francisco. But whereas these guns can throw shells, weighing 81 kg. (178·2 lbs.), to a distance of only $1\frac{1}{2}$ miles, Maxim proposes to fire shells, weighing 1,200 kg. (2,640 lbs.), with a charge of 500 kg. (1,100 lbs.) powder from his torpedo guns and torpedo mortars, to a distance of 9 miles. Maxim, for the present, proposes the construction of the above-mentioned guns, and recommends the armament of each torpedo cruiser to consist of one of the guns and two mortars. These ships should be protected by strong enough armour plates, so that they could resist the projectiles of the heaviest guns, including those of the new English 30·5 cm. (12") wire gun and similar guns. He calculates that a ship of this description could be built for £100,000, and thus ten of them could be constructed in place of one 1st class battleship. These views are very sanguine as will be seen. The torpedo gun of 60 cm. (23·62") calibre is as long as an English 41 cm. (16·14") gun of 111,000 kg. (110 tons), but with a length of 13·31 m. (43·9') shows a weight of only 46,000 kg. (45·17 tons) and must have weaker walls.

The mortar is only half as long. There are four kinds of projectiles, two of which are charged with gun-cotton and the other two with picric acid. A new propellant is recommended, called Maximite after the inventor, but which has been little tested, if at all. The gun-cotton projectiles, which have the initial charge and fuze in the middle and are 60 cm. (28·62") in diameter, can hold 500 kg. (1,100 lbs.) gun-cotton. The other projectile of 30 cm. (11·81") calibre is put into the gun by guiding rings, and holds 112·5 kg. (247·5 lbs.) gun-cotton.

Both the projectiles, with picric acid, have a calibre of 60 cm. (23'62"), and are distinguishable from the others of same calibre, in that the fuze is fixed at the base. They are again, although of the same weight, 777.1250 kg. (2750 lbs.), have different strengths of metal. One contains 50 kg. (1,100 lbs.) and the other 6.9 kg. (1,533.8 lbs.) of explosive matter. Maxim proposes to fire these heavy projectiles at a distance of 9 miles, and projectiles with 1,050 kg. (2,317 lbs.) of bursting charge to a distance of 5 miles.

In the same way, in stars being a projectile with a bursting charge of 50 kg. (1,100 lbs.) and 1,180 kg. (2,600 lbs.), he proposes to fire to a distance of 3 and 12 miles, respectively. Nothing is known about the accuracy of these guns.

The management of a gun, 44 feet long and of the others, 22 feet long, on a comparatively small ship will always be very difficult. The weight of this gun and these mortars is considerable, and is only suitable for large cruisers. If the ship is intended to be armour-plated, as stated above, plates of nickel steel of at least 10" must be used. The ship's capacity will consequently be diminished.

The ship should have great speed, therefore powerful engines, which again demand a great deal of space. To build such a ship for £100,000 is impossible, it is more likely to cost £500,000. Even then it is an open question whether one would prefer such a cruiser at such a price to the cruisers in existence.

from the "Deutsche Heeres-Zeitung"

THE EFFECTS OF SMALL BORE RIFLES

The war between Greece and Turkey will perhaps show us, whether or not, the chief military powers have gone too far in diminishing the calibre of rifles.

Dr. Delorme sent a report to the Medical Academy in regard to the unfortunate event at Farnios. In this report he makes the statement that "some wounds in the head, neck, and abdomen had a horrible appearance, but all wounds on the limbs were light and healed easily." The wounded declared that they only experienced a slight shock, some said that they

felt something like a blow, and others did not notice at all that they had been hit. Some, who were severely wounded, remained standing and could walk. These observations were made on forty-two wounded, of whom eight died. In his concluding remarks Dr. Delorme declared that the 11 mm. bullet gave a far greater shock than the 8 mm. He also affirms that the wounds caused by a 8 mm. bullet would always heal very quickly, provided no vital part was struck.

Officers, who have taken part in the Dahomey Expedition, report that the Lebel bullets did not generally stop the rush of the enemy. A very large number of severely wounded men, shot right through the body, managed to get up to the French line, and broke down only some time after the attack.

Similar reports came from Madagascar. Marine Infantry officers affirm that the Gras rifle had a far more murderous effect in Tonkin and the Soudan than the Lebel rifle in Madagascar.

In Chitral, where the English tried the Lee-Metford rifle (M-1889, calibre 7.7 mm., weight of bullet 13.8 gr., and initial velocity 610 m.), it was often noticed that men who were struck did not fall down. The natives universally called this weapon the "child's rifle" on account of its shortness and its little effect.

The "Revue d'Infanterie" reports that, in the Malakand fight, a native was struck by six bullets—on the anklebone, on the knee, on the hips, and on the head. This last wound was caused by the bullet entering at the back of the neck and going out of the mouth after smashing several teeth. This native had strength enough to walk to an English dressing-station where he had his wounds dressed, and in a very short time they healed. The medical men, attached to the expedition, have observed that even severe wounds did not cause the wounded to break down; on the contrary, they were still able to walk and even to fight some time after being hit.

After the enterprise of the freebooter Jameson in Transvaal, the wounded of both parties lay in the hospital at Krugersdorf. The doctors affirmed that the wounds caused by the small bore rifles were very smooth, that the small entrance holes closed of their own accord, and that the loss of blood was very little. One of the wounded at Krugersdorf was shot through the lungs, yet in a few days the wound healed. When these facts became known in England, there was a great commotion, and many newspapers regretted that the Martini-Henry rifle had been so hastily replaced by the Lee-Metford rifle.

The Italian Paravicino-Carcano rifle, M-1891, calibre 6.5 mm. (.256"), weight of bullet 10.45 gr., initial velocity about 710 m., has been called by the Abyssinians as "the rifle that does not kill." The Italian military papers have several times pointed out that the new Italian rifle may have been one of the causes of General Baratieri's disaster; and as a result of the experience gained thereby, the question is brought forward whether the rush of Menelik's troops would not have been broken up by the Vetterli rifle. The murderous effects of the Carcano rifle do not appear to be more terrible than the English rifle.

The Italian Colonel Nava, who was a prisoner for a certain time in Abyssinia, has been able to observe a large number of wounded. He remarked that all wounds, which were not in vital parts, healed very quickly, and he has thereby concluded that the new weapon of the Italian Infantry is far less effective than the old. He reported also that the Abyssinians had called the Italian rifle "the rifle which does not kill." This nickname is significant, for it is surely the first time that a weapon of war has been thus styled. An officer of Menelik's Army, who came to Europe a short time ago, and was an eye-witness of the various fights in this campaign, fully agrees with the views expressed by Colonel Nava. Comparing the losses sustained by both parties in the battle of Abba Carma, he puts the loss of the Italians at 14,000 killed and very few wounded, whilst the Abyssinians' loss was only 4,000 killed and a very large number of slightly wounded.

He concludes from this that the new Italian rifle cannot cause any fear, whilst the Vetterli and Gras rifles have caused awe-inspiring effects under his own eyes. A man, hit by a bullet from one of the last two rifles, receives a great shock, turns round a couple of times, and then drops to the ground.

During their campaign against China, the Japanese were armed with Murata rifles of two different patterns. One of these patterns had a calibre of 8 mm., and in regard to weight and initial velocity it fired a bullet similar to the Lebel.

An American officer visited the Chinese wounded in the hospital at Tientsin, and states that the wounds caused by the 8 mm. Murata rifle had extraordinary small entrance and exit holes which healed very quickly. The English doctor, who attended these wounded, stated that nine out of ten of them would have died on the spot if they had been struck by 10 mm. or 11 mm. rifles.

The "Revue d'Infanterie" mentions also the effects of the Roumanian rifle, the Mannlicher, calibre 6.5 mm., weight of bullet 10 gr., initial velocity 745 m.

The Roumanian Commission, charged with the trial of this rifle, caused it to be fired at living horses at 1,400 m. On examining the wounds, it was found that they were very severe when the bullet struck a bone or an artery. On the other hand, the wounds in soft parts were very slight and much less severe than those caused by bullets of medium calibres. These wounds would have been quite insufficient to suddenly stop a cavalry charge.

The military powers are sure to watch, with great interest, the events of the present Greek-Turkish war, especially as regards the killed and wounded.

To arrest an enemy, a rifle should possess, above all, the power of placing a wounded man *hors de combat*.

In France everybody thought that the 8 mm. calibre rifle was not small enough. Since 1886 trials are being made with rifles of 7 mm. and 6.5 mm. calibre. Are the defenders of such small bore rifles convinced of the correctness of their views?

from the "Deutsche Heeres-Zeitung."

CUBA : THE EFFECTS OF THE .31" MANSER BULLET.

The following is extracted from Dr. H. W. Danforth's report, who served with the insurgents in Cuba :—"I saw a man who had been shot through the head about a year ago, and who is apparently quite well, but suffers a little from gout. I saw another man, Major Osgood of the Artillery, who was shot through the middle of the forehead, and he managed to live for three hours ; if it had been an ordinary bullet, he would probably not have lived more than as many seconds.

A third man was hit only $\frac{1}{8}$ " above the heart, and for three hours I could not find out whether the heart had been grazed. This man was admitted into hospital and was discharged after seven days. A fourth man received a bullet in the upper thigh, which went right through the bone and out again at the other side. This man asked to be allowed to

x

remain on his horse and to take further part in the fight. I slit his breeches open and put plasters on the inner and outer wound, and in ten minutes he took part in an attack. If this had been an ordinary bullet, the man's leg would have had to be amputated.

from the "Deutsche Heeres-Zeitung."

CORRESPONDENCE.

To

The Secretary,

United Service Institution

of India.

13th June 1898.

DEAR SIR,

With reference to Major Yate's paper on "First aid to the Wounded," which appeared in the Journal for April 1898, in which that officer suggests that Bandsmen be authoritatively instructed in "stopping bleeding, bandaging and applying temporary splints to fractured bones," might I venture to point out that under paragraph 1790-A., Army Regulations, India, Volume II, Part II, as amended by Military Department No. 1210-A., dated 8th August 1887, all bandsmen of Native battalions are required to be instructed not only in stretcher drill, but also in rendering first aid to the wounded.

Believe me,

Yours faithfully,

X

NOTICE.

The sum of Rs. 200, allotted by the Council of the United Service Institution of India, as premia for articles contributed to the Journal during 1897, was distributed between the undermentioned Officers.

Major J. A. Ferrier, D.S.O., R.E.

Major R. M. Rainey, 12th Madras Infantry.

Captain M. S. Wellby, 18th Hussars.

Surgeon-Captain Bruce Seaton, I.M.S.

The Council has placed Rs. 500 at the disposal of the Ex-Committee for allotment as premia during the current year, to the writers of articles of exceptional merit.

Prize Essay Gold Medallists.

- 1872.....ROBERTS, Lieut.-Col. F. S., V.C., R.A.
 1873.....COLQUHOUN, Capt. J. A. S., R.A.
 1874.....COLQUHOUN, Capt. J. A. S., R.A.
 1879.....ST. JOHN, Maj. O. B. C., R.E.
 1880.....BARROW, Lieut. E. G., S.C.
 1882.....MASON, Lieut. A. H., R.E.
 1883.....COLLEN, Maj. E. H. H., S.C.
 1884.....BARROW, Capt. E. G., S.C.
 1887.....YATE, Lieut. A. C., S.C.
 1888.....MAUDE, Capt. F. N., R.E.
 YOUNG, Maj. G. F., S.C. (specially awarded a silver medal).
 1889.....DUFF, Capt. B., S.C.
 1890.....MAGUIRE, Capt. C. M., S.C.
 1891.....CARDEW, Lieut. F. G., S.C.
 1893.....BULLOCK, Maj. G. M., Devon. Regt.
 1894.....CARTER, Capt. F. C., Northumberland Fusiliers.
 1895.....NEVILLE, Lieut.-Col. J. P. C., S.C.
 1896.....BINGLEY, Capt. A. H., S.C.
 1897.....NAPIER, Capt. G. S. F., 2nd Bn. Oxfordshire Light Infantry.
 1898.....MULLALLY, Major H., R.E.
 CLAY, Capt. C. H., S.C. (specially awarded a silver medal).

MacGregor Memorial Silver Medallists.

- 1889.....BELL, Col. M. S., V.C., R.E. (specially awarded a gold medal).
 1890.....YOUNGHUSBAND, Capt. F. E., K. Dn. Gds.
 1891.....SAWYER, Maj. H. A., S.C.
 1891.....RAMZAN KHAN, Havildar, 3rd Sikhs.
 1892.....VAUGHAN, Capt. H. B., S.C.
 1892.....JAGGAT SINGH, Havildar, 19th P. I.
 1893.....BOWER, Capt. H., S.C. (specially awarded a gold medal).
 1893.....FAZALDAD KHAN, Dafadar, 17th B. C.
 1894.....O'SULLIVAN, Maj. G. H. W., R.E.
 1894.....MULL SINGH, Sowar, 6th B. C.
 1895.....DAVIES, Capt., Oxfordshire Light Infy.
 1895.....GUNGA DYAL SINGH, Havildar, 2nd B. I.
 1896.....COCKERILL, Lieut. G. K., 28th P. I.
 1896.....GHULAM NABI, Private, Q. O. Corps of Guides.
 1897.....SWAYNE, Capt. E. J. E., 16th B. I.
 1897.....SHAHZAD MIR, Dafadar, 11th B. L.
 1898.....WALKER, Capt. H. B., Duke of Cornwall's Light Infantry.
 1898.....ADAM KHAN, Havildar, Guides Infantry.

MOSBY'S RANGERS.

LECTURE BY LIEUTENANT-COLONEL F. M. RUNDALL, D.S.O., COMMANDING 1ST BATTALION, 4TH GURKHA RIFLES.

Before giving an account of what the Federals termed Mosby's Guerillas, and describing the part they played in the great Civil War of America, I should like it to be clearly understood that I do not in any way take as my text "Go and do thou likewise." I have selected the subject simply because it is one which teems with an interest peculiarly its own, and the daring deeds performed by mere handfuls of Mosby's men are surrounded by a halo of romance which charms alike the casual as well as the military reader. I shall simply relate what these rangers did, and the effect produced by their raids on the Federals, leaving it open to discussion what lessons can be learnt from them, and whether a modification of their tactics would or would not be practicable and useful. Mosby's Rangers were a band of Irregular Cavalry and formed part of the Confederate or Southern Forces.

The period of which this lecture treats is from about March 1863 to April 1865; and the theatre where Mosby's men played their part lies in Virginia, and is bounded roughly by the following limits; the line of the Potomac on the North and East; the Rappahannock on the South and South-West; and the Shenandoah Valley on the West.

For the subject-matter of this lecture I am indebted to a Book called "Mosby's Rangers," written by one of themselves, a Mr. James J. Williamson, and published by Ralph B. Kenyon, New York. As I shall frequently refer to Mr. Williamson, I would ask you to remember who he is—one of Mosby's Rangers.*

"John Singleton Mosby was born at Edgmont, Virginia, in 1833. He graduated at the University of Virginia, and commenced life as a lawyer, and when war broke out between North and South he was engaged in the practice of law. He first entered the Confederate Army as a private in a Cavalry Regiment, and was not long after chosen as an independent

* For the Map I am indebted to the American War Office, who most kindly gave me, some two years ago, twenty-five excellent Official Maps and Plans of the theatre of the War of 1861-65.—*F. M. R.*

scout by General Stuart. He was the first to make the circuit of the Federal Army, while it was still in front of Richmond, thereby enabling General Stuart to make his celebrated raid round the entire army of General McClellan, on which occasion Mosby went as guide." He subsequently raised a small band of guerillas (though Williamson objects to the term), which rapidly increased as his successes made him famous, until he had some 800 men under his command.

Williamson thus describes the personal appearance of this remarkable man the first time he met him: "From the accounts which I heard and read of him, I expected to see a man such as novelists picture when describing some terrible brigand chief. I was therefore somewhat surprised when one of my companions pointed to a rather slender, but wiry looking, young man of medium height, with light hair, keen eyes, and pleasant expression, who was restlessly walking up and down the street, and said—'There is Mosby.' One who was taken prisoner by him says: "In his address and demeanour Mosby is a perfect gentleman, and his relations with ourselves were highly courteous. He is about twenty-eight years of age, of pre-possessing appearance and certainly the reverse of the picture drawn of him in the newspapers generally."

"Mosby's men, when not on duty, were mostly scattered through the countries of Loudoun and Fauquier. There were few indeed, even amongst the poorest mountaineers, who would refuse shelter and food to Mosby's Rangers. Having no camps, they made their homes at the farm houses, especially those along the Blue Ridge and Bull Run Mountains. Certain places would be designated at which to meet, but if no time or place had been named at a former meeting, or, if necessary to have the command together before a time appointed, couriers were despatched through the country and the men thus notified."

"Scouts were out at all times in Fairfax, or along the Potomac, or in the Shenandoah Valley. Whenever an opening was seen for successful operations, couriers were sent from headquarters, and in a few hours a number of well-mounted and equipped men were, at a prescribed rendezvous, ready to surprise a picquet, capture a train, or attack a camp or a body of cavalry. After a raid the men scattered, and to the Federal Cavalry in pursuit it was like chasing a Will-o'-the-wisp."

The command was composed chiefly of young men from Fairfax and the adjoining countries, with some Marylanders, many of whom had been arrested and imprisoned, or had suffered injuries and injustice at the hands of the Federal government,

or the invading army. A large number lived in that portion of Virginia and Maryland where Mosby was operating.

The men were furnished with printed certificates of membership signed by Mosby. This was a necessity, because men wearing Confederate uniforms, many of them deserters, or absent from their commands, roamed about the country representing themselves as belonging to Mosby's command. He was greatly annoyed by men in the regular service wishing to join him. He used to refuse such applications, and take only private individuals into his band.

As regards the arms carried by Mosby's men, Williamson says : "The sabre was no favorite weapon with Mosby's men ; they looked upon it as an obsolete weapon, and very few carried carbines. In the stillness of the night the clanking of the sabres and the rattle of the carbines striking against the saddles could be heard for a great distance, and would often betray us when moving cautiously in the vicinity of the Federal camps. We sometimes passed between camps but a few hundred yards apart. We would then leave the hard roads where the noise of the horse's hoofs would attract attention, and marching through the grassy fields, take down bars or fences, and pass quietly through. The carbine was for long range shooting. With us the fighting was mostly at close quarters, and the revolver was then used with deadly effect."*

The Federals, who suffered greatly at their hands, termed them guerillas, bushwhackers, freebooters, etc., etc. ; and with reference to this, Williamson says : "I will only say that Mosby's command was regularly organised and mustered into the Confederate service on the same footing with other troops, except that being organised under the Partisan Ranger Law (an act passed by the Confederate Congress), they were allowed the benefit of the law applying to Maritime prizes."

Their enemies also accused them of wearing Federal uniform. To this accusation Williamson replies : "Such was not the case. They never masqueraded in the uniforms of Federals, except that, through force of circumstances, men at times wore blue overcoats captured by them from Federal Cavalry. This was done because they could get no others. The Confederate Government did not, or could not at all times, provide proper clothing, and our soldiers were compelled to wear these to protect themselves from the cold. Rubber blankets were common to both armies, and when one was worn it completely hid the uniform."

* Later on Mosby had two or three light field pieces given him.

Mosby emphatically denied that he was a spy ; there is a vast difference between a scout and a spy, and Mosby describes his theory of action thus : " As a line is only as strong as its weakest point, it was necessary for it to be stronger than I was at every point in order to resist my attacks. To destroy supply trains, to break up the means of conveying intelligence, and thus isolate an army from its base, as well as its different corps from each other, to confuse plans by capturing despatches, are the objects of partisan warfare. The military value of a partisan's work is not measured by the amount of property destroyed, or the number of men killed or captured, but by the number of the enemy whom he keeps on the watch. Every soldier withdrawn from the front to guard the rear of an army is so much taken from its fighting strength."

" Mosby, disregarding established rules, fought upon a principle which his enemies could neither discover nor guard against. He was in their front, in their rear, on their flank—at one place to-day, and to-morrow in their camps at a point far distant. By his enemies he was thought to be almost ubiquitous. What he lacked in numbers he compensated for by the celerity of his movements and the boldness of his attacks. He generally fought against odds, often great odds ; seldom waited to receive a charge, but nearly always sought to make the attack."

Time will not allow of my doing more than selecting a few of the most prominent feats accomplished by this energetic and daring leader. The raid on Fairfax Court-house and capture of General Stoughton was accomplished on the night of March 8th, 1863. This bold enterprise was effected by Mosby, who penetrated the Federal lines with only twenty-nine men, and succeeded in bringing off his captures without loss or injury. The following is an extract from the *Bedford Magazine*, and is Mosby's own description of this raid :—

" I had only twenty-nine men ; we were surrounded by hostile thousands. When we reached the Court-house Square, which was appointed as a rendezvous, the men were detailed in squads ; some were sent to the stables to collect the fine horses that I knew were there. I took five or six men with me to go after General Stoughton, who was occupying a brick-house on the outskirts of the village. When we reached it all dismounted, and I gave a loud knock on the front door. A head bobbed out from an upper window and enquired who was there. My answer was, " Fifth New York Cavalry with a despatch for General Stoughton." Footsteps were soon heard

tripping downstairs and the door opened. A man stood before me with little else on but his shirt ; I immediately seized hold of his shirt collar, and whispered in his ear who I was, and ordered him to lead me to the General's room.

He was Lieutenant Prentiss of the Staff. We went straight upstairs where Stoughton was, leaving three men behind to guard the horses. When a light was struck we saw, lying on the bed before us, the man of war. He was buried in a deep sleep. There were signs in the room of there having been revelry in the house that night. Some uncorked Champagne bottles furnished an explanation of the General's deep sleep. He had been entertaining a number of ladies from Washington in a style becoming a commanding General.

The revellers had retired to rest just before our arrival with no suspicion of the danger that was hovering over them. The ladies had gone to spend the night at a citizen's house ; loud and long were the lamentations next morning when they heard of the mishap that had befallen the gallant young General. As the General was not awakened by the noise we made in entering the room, I walked up to his bed and pulled off the covering. But even this did not arouse him. He was turned over on his side snoring like one of the seven sleepers. With such environments I could not afford to await his convenience or to stand on ceremony. So I just pulled up his shirt and gave him a spank. Its effect was electric. The Brigadier rose from his pillow and in an authoritative tone enquired the meaning of this rude intrusion. He had not realised that we were not some of his Staff. I leaned over him and said to him : " General, did you ever hear of Mosby ? " " Yes," he quickly answered, " have you caught him ? " " No," I said, " He's caught you ; I am Mosby." In order to deprive him of all hope I told him that Stuart's Cavalry held the town, and that General Jackson was at Centreville. With a look of agony and despair he asked if Fitz Lee was there. I told him, " Yes." " Then," he said, " take me to him, we were classmates at West Point." " Certainly," I said, " but I am in a hurry, dress quick." He had the reputation of being a gallant soldier, but a fop, and he dressed as carefully before a looking-glass as Sardanapalus did when he went to war. When we returned to the Court-house Square all the squads had collected there and done their work. There were only twenty-nine men with me, and we had about one hundred prisoners and horses to guard. It was so dark that the prisoners did not know my men from their own. In the town there were several hundred soldiers, but there was no concert

of action among them ; all was panic and confusion. I started with my prisoners and booty towards Fairfax Station just to deceive the enemy as to the route we were going to retreat. We struck the pike about half way between Centreville and the Court-house. After reaching Centreville pike the principal danger was in front. The camp fires on the heights around Centreville soon became visible through the darkness. I had begun to feel pretty safe from pursuit, but the chief peril lay in flanking the troops at Centreville without running into hostile camps not far away on either side of it. Soon we caught sight of a smouldering fire by the pike about a hundred yards ahead of us. It was evidently a picquet post. I rode forward alone to reconnoitre. No one was about the fire, the post had just been deserted. The grey dawn was now beginning to appear ; the camps were all quiet ; no sign of alarm ; we could see the cannon bristling through the embrasures of the redoubts not more than two or three hundred yards away. No doubt the sentinels mistook us, as we came right from the direction of the cavalry camp, for a body of their own cavalry going on a scout. Nothing, so far as they knew, had occurred during the night to break the monotony of the cry—" All quiet along the Potomac to-night."

In fine, Mosby succeeded in passing through the Federal line of outposts, and brought his prisoners safely to the camp of the Confederate Army.

The next story will give you some idea of the stuff of which Mosby's men were made. On one occasion, during a sharp skirmish with the enemy, Ballard, one of his Rangers, was shot in the leg. Ballard's leg was crushed by the ball, and the rough riding back to the mountains made the fracture worse. He was taken to a friend's house near the top of the mountain, where his leg was amputated. The following winter Ballard was again in the saddle and with the command, but had his artificial leg crushed in a charge on a Federal camp near Halltown. He afterwards came into possession of the leg of Colonel Ulric Dahlgren, with which he was enabled to continue on active service to the end in comparative comfort. As an instance of how Mosby's men sometimes got into tight places and got out of them successfully, I will quote Williamson's description of what is known as " The affair at Miskell's farm." " On Tuesday, the 31st of March, Mosby, with a detail of less than 70 men, moved off towards Dranesville, and camped for the night at Miskell's farm, about half a mile from the Potomac river. The presence of Mosby in the neighbourhood was communicated by a Union citizen to

the officer in command of the first Vermont Cavalry, and a Captain Flint, with two squadrons, started out to surprise and capture us. Dick Moran, one of Mosby's men, had stopped the night at the house of an old acquaintance named Green, and Captain Flint, in passing, also stopped at Green's house. Moran hid until the Federals had passed, and then mounting his horse took a short-cut across the fields to warn Mosby of their approach. About sunrise next morning one of our men came into the house where we were and said he noticed the enemy in the Federal camps on the opposite side of the river were making signals.

Mosby went out into the yard to look at them, when he spied Dick Moran riding towards him at breakneck speed, waving his hat and shouting—"Mount your horses; the Yankees are coming." Mosby rushed to the barnyard on foot to rally his men, and found Flint's first squadron marching through the gate into the field, and they soon opened a brisk fire on us while we were engaged in saddling our horses. The fire was returned, however, and Captain Flint fell, mortally wounded. Mosby, once in the saddle, led his men to the charge, and the terror-stricken Federals, in their efforts to escape from our furious onslaught, became wedged in the narrow passage through the gateway, and, thus hemmed in, they suffered terribly from the murderous fire poured into them, until, bursting through, they rushed frantically out to the woods and turnpike, pursued by the Rangers who fiercely hung upon their rear. Williamson relates how raiding parties of Federals, both Cavalry and Infantry, were constantly scouring the country in all directions in search of Mosby. On their way these Federal raiders gathered up all the horses and cattle they could find, killed the farmer's stock and poultry, and plundered and destroyed private property. Inoffensive citizens, sometimes old and feeble men, were taken off, exhibited as Mosby's men, guerillas, or bushwhackers, imprisoned for months, and finally released without knowing why they were taken."

Many instances are given by Williamson of the singular daring of Mosby's men. The following is a good example of this: "Lieutenant Norman Smith (one of Mosby's officers) went to a house which had been occupied as head-quarters by General Howard (a Federal General). One of his aide-de-camps was still there, sitting at a table writing a note.

"Good evening, Major," said Smith. "You have the advantage of me, Sir," said the Major, looking up from his writing.

"Yes," said Smith, "I have, for you are my prisoner." "What command do you belong to?" asked the Major.

scout by General Stuart. He was the first to make the circuit of the Federal Army, while it was still in front of Richmond, thereby enabling General Stuart to make his celebrated raid round the entire army of General McClellan, on which occasion Mosby went as guide." He subsequently raised a small band of guerillas (though Williamson objects to the term), which rapidly increased as his successes made him famous, until he had some 800 men under his command.

Williamson thus describes the personal appearance of this remarkable man the first time he met him: "From the accounts which I heard and read of him, I expected to see a man such as novelists picture when describing some terrible brigand chief. I was therefore somewhat surprised when one of my companions pointed to a rather slender, but wiry looking young man of medium height, with light hair, keen eyes, and pleasant expression, who was restlessly walking up and down the street, and said—'There is Mosby.' One who was taken prisoner by him says: 'In his address and demeanour Mosby is a perfect gentleman, and his relations with ours were highly courteous. He is about twenty-eight years of age of prepossessing appearance and certainly the reverse of the picture drawn of him in the newspapers generally.'"

"Mosby's men, when not on duty, were mostly scattered through the countries of Loudoun and Fauquier. There were few indeed, even amongst the poorest mountaineers, who would refuse shelter and food to Mosby's Rangers. Having no camps they made their homes at the farm houses, especially those along the Blue Ridge and Bull Run Mountains. Certain places would be designated at which to meet, but no time or place had been named at a former meeting, or it necessary to have the command together before a time appointed, couriers were despatched through the country and the men thus notified."

"Scouts were out at all times in Fairfax, or along the Potomac, or in the Shenandoah Valley. Whenever an opening was seen for successful operations, couriers were sent from headquarters, and in a few hours a number of well-mounted and equipped men were, at a prescribed rendezvous, ready to surprise a picket, capture a train, or attack a camp or a body of cavalry. After a raid the men scattered, and to the Federal Cavalry in pursuit it was like chasing a Wild-o'-the-west."

The command was composed chiefly of young men from Fairfax and the adjoining countries with some Marylanders, many of whom had the narrowest of things to say of the injuries and injustice at the hands of the Federal government,

or the invading army. A large number lived in that portion of Virginia and Maryland where Mosby was operating.

The men were furnished with printed certificates of membership signed by Mosby. This was a necessity, because men wearing Confederate uniforms, many of them deserters, or absent from their commands, roamed about the country representing themselves as belonging to Mosby's command. He was greatly annoyed by men in the regular service wishing to join him. He used to refuse such applications, and take only private individuals into his band.

As regards the arms carried by Mosby's men, Williamson says : " The sabre was no favorite weapon with Mosby's men ; they looked upon it as an obsolete weapon, and very few carried carbines. In the stillness of the night the clanking of the sabres and the rattle of the carbines striking against the saddles could be heard for a great distance, and would often betray us when moving cautiously in the vicinity of the Federal camps. We sometimes passed between camps but a few hundred yards apart. We would then leave the hard roads where the noise of the horse's hoofs would attract attention, and marching through the grassy fields, take down bars or fences, and pass quietly through. The carbine was for long range shooting. With us the fighting was mostly at close quarters, and the revolver was then used with deadly effect."*

The Federals, who suffered greatly at their hands, termed them guerillas, bushwhackers, freebooters, etc., etc. ; and with reference to this, Williamson says : " I will only say that Mosby's command was regularly organised and mustered into the Confederate service on the same footing with other troops, except that being organised under the Partisan Ranger Law (an act passed by the Confederate Congress), they were allowed the benefit of the law applying to Maritime prizes."

Their enemies also accused them of wearing Federal uniform. To this accusation Williamson replies : " Such was not the case. They never masqueraded in the uniforms of Federals, except that, through force of circumstances, men at times wore blue overcoats captured by them from Federal Cavalry. This was done because they could get no others. The Confederate Government did not, or could not at all times, provide proper clothing, and our soldiers were compelled to wear these to protect themselves from the cold. Rubber blankets were common to both armies, and when one was worn it completely hid the uniform."

* Later on Mosby had two or three light field pieces given him.

Mosby emphatically denied that he was a spy ; there is a vast difference between a scout and a spy, and Mosby describes his theory of action thus : " As a line is only as strong as its weakest point, it was necessary for it to be stronger than I was at every point in order to resist my attacks. To destroy supply trains, to break up the means of conveying intelligence, and thus isolate an army from its base, as well as its different corps from each other, to confuse plans by capturing despatches, are the objects of partisan warfare. The military value of a partisan's work is not measured by the amount of property destroyed, or the number of men killed or captured, but by the number of the enemy whom he keeps on the watch. Every soldier withdrawn from the front to guard the rear of an army is so much taken from its fighting strength."

" Mosby, disregarding established rules, fought upon a principle which his enemies could neither discover nor guard against. He was in their front, in their rear, on their flanks—at one place to-day, and to-morrow in their camps at a point far distant. By his enemies he was thought to be almost ubiquitous. What he lacked in numbers he compensated for by the celerity of his movements and the boldness of his attacks. He generally fought against odds, often great odds, seldom waited to receive a charge, but nearly always sought to make the attack."

Time will not allow of my doing more than selecting a few of the most prominent feats accomplished by this energetic and daring leader. The raid on Fairfax Court-house and capture of General Stoughton was accomplished on the night of March 8th, 1863. This bold enterprise was effected by Mosby, who penetrated the Federal lines with only twenty-nine men, and succeeded in bringing off his captures without loss or injury. The following is an extract from the *Bedford Magazine*, and is Mosby's own description of this raid :—

" I had only twenty-nine men ; we were surrounded by hostile thousands. When we reached the Court-house Square, which was appointed as a rendezvous, the men were detached in squads ; some were sent to the stables to collect the fine horses that I knew were there. I took five or six men with me to go after General Stoughton, who was occupying a brick-house on the outskirts of the village. When we reached it all dismounted, and I gave a bulldozer knock on the front door. A head bobbed out from an upper window and enquired who was there. My answer was, " Fifth New York Cavalry with a despatch for General Stoughton." Footsteps were seen heard

tripping downstairs and the door opened. A man stood before me with little else on but his shirt ; I immediately seized hold of his shirt collar, and whispered in his ear who I was, and ordered him to lead me to the General's room.

He was Lieutenant Prentiss of the Staff. We went straight upstairs where Stoughton was, leaving three men behind to guard the horses. When a light was struck we saw, lying on the bed before us, the man of war. He was buried in a deep sleep. There were signs in the room of there having been revelry in the house that night. Some uncorked Champagne bottles furnished an explanation of the General's deep sleep. He had been entertaining a number of ladies from Washington in a style becoming a commanding General.

The revellers had retired to rest just before our arrival with no suspicion of the danger that was hovering over them. The ladies had gone to spend the night at a citizen's house ; loud and long were the lamentations next morning when they heard of the mishap that had befallen the gallant young General. As the General was not awakened by the noise we made in entering the room, I walked up to his bed and pulled off the covering. But even this did not arouse him. He was turned over on his side snoring like one of the seven sleepers. With such environments I could not afford to await his convenience or to stand on ceremony. So I just pulled up his shirt and gave him a spank. Its effect was electric. The Brigadier rose from his pillow and in an authoritative tone enquired the meaning of this rude intrusion. He had not realised that we were not some of his Staff. I leaned over him and said to him : " General, did you ever hear of Mosby ? " " Yes," he quickly answered, " have you caught him ? " " No," I said, " He's caught you ; I am Mosby." In order to deprive him of all hope I told him that Stuart's Cavalry held the town, and that General Jackson was at Centreville. With a look of agony and despair he asked if Fitz Lee was there. I told him, " Yes." " Then," he said, " take me to him, we were classmates at West Point." " Certainly," I said, " but I am in a hurry, dress quick." He had the reputation of being a gallant soldier, but a fop, and he dressed as carefully before a looking-glass as Sardanapalus did when he went to war. When we returned to the Court-house Square all the squads had collected there and done their work. There were only twenty-nine men with me, and we had about one hundred prisoners and horses to guard. It was so dark that the prisoners did not know my men from their own. In the town there were several hundred soldiers, but there was no concert

of action among them ; all was panic and confusion. I started with my prisoners and booty towards Fairfax Station just to deceive the enemy as to the route we were going to retreat. We struck the pike about half way between Centreville and the Court-house. After reaching Centreville pike the principal danger was in front. The camp fires on the heights around Centreville soon became visible through the darkness. I had begun to feel pretty safe from pursuit, but the chief peril lay in flanking the troops at Centreville without running into hostile camps not far away on either side of it. Soon we caught sight of a smouldering fire by the pike about a hundred yards ahead of us. It was evidently a picquet post. I rode forward alone to reconnoitre. No one was about the fire, the post had just been deserted. The grey dawn was now beginning to appear ; the camps were all quiet ; no sign of alarm ; we could see the cannon bristling through the embrasures of the redoubts not more than two or three hundred yards away. No doubt the sentinels mistook us, as we came right from the direction of the cavalry camp, for a body of their own cavalry going on a scout. Nothing, so far as they knew, had occurred during the night to break the monotony of the cry—" All quiet along the Potomac to-night."

In fine, Mosby succeeded in passing through the Federal line of outposts, and brought his prisoners safely to the camp of the Confederate Army.

The next story will give you some idea of the stuff of which Mosby's men were made. On one occasion, during a sharp skirmish with the enemy, Ballard, one of his Rangers, was shot in the leg. Ballard's leg was crushed by the ball, and the rough riding back to the mountains made the fracture worse. He was taken to a friend's house near the top of the mountain, where his leg was amputated. The following winter Ballard was again in the saddle and with the command, but had his artificial leg crushed in a charge on a Federal camp near Halltown. He afterwards came into possession of the leg of Colonel Ulric Dahlgren, with which he was enabled to continue on active service to the end in comparative comfort. As an instance of how Mosby's men sometimes got into tight places and got out of them successfully, I will quote Williamson's description of what is known as " The affair at Miskell's farm." " On Tuesday, the 31st of March, Mosby, with a detail of less than 70 men, moved off towards Dranesville, and camped for the night at Miskell's farm, about half a mile from the Potomac river. The presence of Mosby in the neighbourhood was communicated by a Union citizen to

the officer in command of the first Vermont Cavalry, and a Captain Flint, with two squadrons, started out to surprise and capture us. Dick Moran, one of Mosby's men, had stopped the night at the house of an old acquaintance named Green, and Captain Flint, in passing, also stopped at Green's house. Moran hid until the Federals had passed, and then mounting his horse took a short-cut across the fields to warn Mosby of their approach. About sunrise next morning one of our men came into the house where we were and said he noticed the enemy in the Federal camps on the opposite side of the river were making signals.

Mosby went out into the yard to look at them, when he spied Dick Moran riding towards him at breakneck speed, waving his hat and shouting—"Mount your horses; the Yankees are coming." Mosby rushed to the barnyard on foot to rally his men, and found Flint's first squadron marching through the gate into the field, and they soon opened a brisk fire on us while we were engaged in saddling our horses. The fire was returned, however, and Captain Flint fell, mortally wounded. Mosby, once in the saddle, led his men to the charge, and the terror-stricken Federals, in their efforts to escape from our furious onslaught, became wedged in the narrow passage through the gateway, and, thus hemmed in, they suffered terribly from the murderous fire poured into them, until, bursting through, they rushed frantically out to the woods and turnpike, pursued by the Rangers who fiercely hung upon their rear. Williamson relates how raiding parties of Federals, both Cavalry and Infantry, were constantly scouring the country in all directions in search of Mosby. On their way these Federal raiders gathered up all the horses and cattle they could find, killed the farmer's stock and poultry, and plundered and destroyed private property. Inoffensive citizens, sometimes old and feeble men, were taken off, exhibited as Mosby's men, guerillas, or bushwhackers, imprisoned for months, and finally released without knowing why they were taken."

Many instances are given by Williamson of the singular daring of Mosby's men. The following is a good example of this: "Lieutenant Norman Smith (one of Mosby's officers) went to a house which had been occupied as head-quarters by General Howard (a Federal General). One of his aide-de-camps was still there, sitting at a table writing a note.

"Good evening, Major," said Smith. "You have the advantage of me, Sir," said the Major, looking up from his writing.

"Yes," said Smith, "I have, for you are my prisoner."

"What command do you belong to?" asked the Major.

"Major Mosby's," replied Smith. The Major did not relish the idea of being taken prisoner, and for a time was rather surly, but he soon found he had companions in misfortune, and was disposed to make the best of the situation."

The following paragraph gives an insight into the life led by the Rangers; speaking of one summer Williamson says: "There was now no time for rest in the midst of Meade's army on those hot July days; the sun glaring down with intense fierceness, the air filled with dust raised by the steady tramp of thousands. Our little band was darting in here and out there—perhaps making a dash into a wagon train before the guards were aware of our presence; and, before they could recover from their surprise, dashing off under cover of the woods.

Although our presence in the army was known and felt, as we were constantly changing our position—scurrying off from one point to another—it was impossible to locate us. On the 24th we captured a few prisoners and 33 mules within one hundred yards of General Howard's head-quarters." Mosby himself was always in the thick of the fighting, and was badly wounded on August 24th, being shot through the side and thigh; but he resumed command of his men again on the 21st of October, only two months after being wounded.

"The region of country in which Mosby operated, being disputed territory outside the lines, was left entirely unprotected during the war by the civil and military authorities on both sides; and, but for the presence of Mosby's men, the defenceless people would have been at the mercy of the roving bands of deserters, left in the tracks of both armies as they passed backwards and forwards through the country. The mountains were infested with horse-thieves and desperadoes, who were ready to prey upon the inhabitants, regardless as to whether their sympathies were with the North or South. Mosby's men performed the duties of police as well as soldiers, and were the sole guardians of this territory; while Mosby, acting as military ruler and also as judge, not only kept the lawless element in check, but also settled differences between individuals, without the tedious process of litigation, and without fear or favour."

But of course he principally occupied himself with harassing the Federals in a hundred and one ways. Williamson gives an amusing account of the capture of a large wagon train on November the 26th, 1863. I give these extracts *in extenso*, as the descriptions are so graphic that one is better able to realise what the life and work of a guerilla are. "It being reported that the Federal forces camped

at Warrenton had crossed the Rappahannock, and that the whole of Meade's army was in motion, Mosby ordered the command to assemble at Rectortown. One hundred and twenty-five men answered the summons. At Brandy Station there was a heavy wagon train and an infantry guard. Mosby determined to attack the camp at night. The wagons were standing around, while beside them the mules were fastened and stood lazily dozing. Some of the teamsters were sleeping and lay rolled up in their blankets, while others were sitting around the fires chatting and smoking. The sentinels were quietly taken by us from their posts, and every precaution was used to prevent giving an alarm. As Mosby rode along among the wagons, a quartermaster, mistaking him for one of his own men, asked: "Have they gone?" "No," said Mosby, "just going." A group of Negroes were sitting around one of the fires enjoying the warmth as only Negroes can, when Captain Chapman, drawing his revolver, told them he would shoot the first one who made any noise. With trembling voices they begged him not to shoot. In the meantime the Rangers busied themselves in unhitching the mules from the wagons. An old Negro, poking his head out from under his blanket, looking like a huge turtle peering from his shell, said: "Look heah! Go long'way frum dem mules. You jes' want to steal one." At length a shot was fired by some one and then ensued a scene of confusion baffling description. Negroes and whites ran wildly about in their alarm. The Negroes particularly appeared to be unable to decide what was to be done. "Please Massa, don't shoot. Which way mus' I run?" "Unhitch them mules," was the reply. "Yes Massa." Then they would set to work with trembling hands all the while looking fearfully and anxiously around. Occasionally an order would be given to one of them—"Jump on that mule." And now and then would be heard a heavy thump, as some mischievous mule would land an unfortunate darkey upon the ground and run off, kicking up its heels and braying vehemently; and a voice would be heard saying, "Please Massa, don't let me git on dat mule any mo'; he never bin rode befo'." After taking the mules we set fire to the wagons. Amid the confusion, one very ugly old Negro, awakened by the bustle, put his head out of the wagon where he had been enjoying a comfortable nap, and seeing his wagon on fire exclaimed: "Fore God! who dun sot my wagon afire?" and jumped to the ground. We captured 160 mules and seven horses, with a large quantity of harness; also a number of prisoners. The large number of wagons and great

quantity of supplies burned was a very serious loss to the enemy."

The cool way in which five or six of the Rangers would take prisoner twice their own number is shown by the following incident: "A body of Federal Cavalry having pitched their camp in the vicinity of the Hazel river, Mosby sent Lieutenant Turner with five others to reconnoitre their position, and see what the chances were for a successful foray. Crossing the river, Turner concealed his men in a thicket while he rode out in view of the camp. A cavalryman, coming out to see who he was, found himself a prisoner, and another following shared the same fate. With his two prisoners in front, Turner now advanced on a picquet of ten men posted a short distance from the camp. As our men drew near, they were ordered to halt; but seeing their own men in front, the picquets allowed them to approach until they suddenly found themselves covered by the pistols of Turner and his men, who compelled them to surrender. They then re-crossed the river, bringing over the twelve prisoners with their horses and equipments."

The following account of the capture of a Federal picquet of forty men, one cold night, is worth listening to; "Lieutenant Turner (one of Mosby's officers) left Salem about sunset on January 6th with thirty-two men, crossing the pike near Warrenton. It was a bitter cold night, with the thermometer registering some degrees below zero, and the ground was covered with snow. There was a picquet post on Lee's Ridge, and the command was left at a house to warm themselves, while Lieutenant Turner, with four or five men, went forward to find out something about the post. Soon they came upon two men who had been placed on picquet duty, but had gone into a little hollow to shelter themselves from the cold wind. Gregg's division of Federal Cavalry was camped around in the neighbourhood, but Turner did not know the exact situation of the camps, though we could see the camp fires blazing. As soon as the two men saw Turner, they mounted their horses, and one of them immediately galloped off to camp. Signalling for his men to get between the other man and the fires, Turner advanced on him. The man levelled his carbine and called out—"Halt! who goes there?" "Friends!" said Turner. "Advance one," replied the man. Turner drew his pistol, and riding up to the man suddenly pointed it at his head, and commanded him to surrender. The carbine was instantly dropped with the exclamation: "I knew you were Mosby's men," and he added, "you need not fear; I'll tell you all about the post, and go with you too." There was a

reserve post of forty men, and at about four o'clock in the morning Turner led his men to the rear of the post and then along the pike. Soon we came in sight of the blazing watch-fires. When opposite the fires Turner gave the word—charge, and our men dashed in amongst the surprised and affrighted party, firing as they went. A few of them dropped around the fires, and the rest threw up their arms exclaiming: "For God's sake don't shoot; we surrender." Here we have an example of cavalry attacking successfully an Infantry picquet or dismounted men armed with breech loaders; a picquet, mark you; *i.e.*, a body of men in a position where they are supposed to be specially on the alert.

Mosby's Rangers were of course by no means always successful. They sometimes suffered severe reverses, as will be seen from the following account of an attempt made by them to capture Cole's camp on Loudoun heights. In the life of Sheridan there is a sketch of this affair entitled: "A Battle in the Snow." "Captain Stringfellow, a very dashing independent scout, who was not one of Mosby's men, suggested to Mosby that he should co-operate with him in the capture of Cole's camp on Loudoun heights. As Stringfellow had reconnoitred the camp and made himself familiar with its details, Mosby readily agreed with him that the place could be surprised and captured with no great effort. Accordingly, on the afternoon of January the 9th, 1864, Mosby started from Upperville with 106 men. Within two miles of the camp we were joined by Stringfellow with his ten men. The night was clear, the stars shone brightly, and the cold was sharp and biting. The command moved up along the mountain side in single file, strung out for some distance on the narrow path. Suddenly "crack" went the report of a pistol; and then bang went the carbines from the camp in front, accompanied by loud shouts from Cole's camp. Above the din rang the clear voice of Smith and Turner: "Charge them, boys! Charge them!" The first row of tents was captured when Stringfellow's men, who had charged into the rear of the camp contrary to our orders, came on yelling and shooting. Our men, supposing them to be Federals, fired on them, killing and wounding several. Taking advantage of the confusion which ensued, Captain Vernon, of Cole's Battalion, rallied his men, and opened on us a withering fire. Some of the Federals sheltered themselves in an old log house, firing on us from the door, windows, and through the chinks. Lieutenant Turner and a number of Mosby's officers and men were killed and wounded, and after some desperate fighting, Mosby, hearing the signal gun at Harper's Ferry, where several thousands of Federals were quartered, gathered up his shattered forces and

retired from this disastrous attack in the direction of Hillsborough, taking seven prisoners and thirty-five horses. The Federals did not attempt to follow, though they continued firing as long as the command was within sight or hearing."

When Mosby's force numbered several hundreds each troop had a special tract of country assigned to it to guard from Federal raiding parties. Thus to troop "A" was assigned the turnpike below Meddleburg; to "B" troop the roads between Bloomfield and Upperville, and so on. This rendered it very difficult for Federal raiding parties to act in that part of the country. For instance: on February the 21st Mosby received information that a Federal scouting party of 150 cavalry and a platoon of infantry were at Rector's cross roads; he promptly way-laid them, and after a hot little fight, defeated them, killing and wounding forty of them, and capturing seventy-two prisoners and ninety horses, with a loss to himself of only one man killed and a few wounded. As the Federal lines became more extended, greater numbers were required to guard them from the attacks of Mosby's Rangers; and in this way Mosby with his few men kept thousands of Federal soldiers from active duty in the front, to say nothing of the damage inflicted by their constant assaults.*

It is interesting to read the G. Os. issued by the Federal Generals after one of these skirmishes which took place at a spot called Guard Hill, in which Mosby had considerably worsted the Federals. It runs thus: "G. O. No. 31, May 24th, 1864. Major Henry Roessle, Fifteenth New York Cavalry, having grossly neglected his duty while in command of picquets, resulting in the capture of eleven men and forty-five horses, is dishonourably dismissed the service of the United States from this date."

The Federals, exasperated by Mosby's continuous and, for the most part, successful attacks, retaliated by destroying the property of the defenceless and inoffensive inhabitants of the district; this action on the part of the Federal Generals has been stigmatised by General Early as "most wanton cruel, unjustifiable, and cowardly."

I cannot refrain from mentioning a brilliant little action, fought by Mosby on the banks of the Potomac. Williamson says: "The command met at Upperville on July 3rd, 1864, about 250 men being present. We started at noon with one 12-pounder gun and marched by Bloomfield.

* As a matter of fact, Mosby's men in their various raids killed and wounded upwards of 500 Federals; took upwards of 2,100 prisoners, and captured more than 2,100 horses and 900 mules, besides large quantities of stores and a great number of wagons.—*F. M. R.*

Continuing our march next morning we reached the Potomac opposite to, and in view of, Berlin. We then moved along the river to a ford where there was a Federal force consisting of two companies of cavalry and two companies of infantry. As we approached the ford the sharpshooters, who were concealed in the bushes along the shore, opened fire on us, and the cavalry drew up in line near the town. Mosby ordered a few men with long range guns to the river bank, and for some time a brisk fire was kept up with but little damage to either side. Lieutenant Chapman now placed his gun in position on a hill opposite the town, and sent a shell across the river into the bushes. Our sharpshooters advanced to a little island in the middle of the river, from which they had dislodged the enemy, and we were ordered to cross. Captain Richards, with Company A, then dashed into the river, followed by Companies B and D, the carbineers wading on our flanks, the Federals firing on us from the opposite shore. Once across the river we pushed ahead on the tow path, but, when opposite a place called the Point of Rocks, were forced to come to halt. The Federals, after crossing the bridge over the canal, had torn up the flooring, so that it was impossible to cross. On a hill near their camp was a small earthwork which commanded the bridge, and from this shelter the enemy kept up a brisk fire. Richards immediately set men to work tearing boards from an old building near by, with which to repair the bridge. In the meantime Lieutenant Harry Hatcher ran across on the bridge timbers, hauled down the Federal flag from the flagstaff in the camp, and brought it over in triumph amid a shower of balls. Men were then dismounted, and, under Captain Richards, crossed the bridge in like manner and drove the Federals from their entrenchments. By this time planks had been laid, and the command swept over to the town and set fire to the camp and to a canal boat. The Federal forces fled.

We cut down telegraph poles and cut the wires, thus breaking the communication between Harper's Ferry and Washington.

Although this was a hazardous enterprise, we sustained no injury. While we were in possession of the town a train of cars came along the rail-road, but the gun was brought into play and the train sent back. The telegraph operator ran off and hid in the mountains, where he remained until we had all left. He afterwards returned and sent off several despatches. Finding himself unable to give all the details in a telegram, he wound up by saying, "The devil was to pay generally."

At length the Federal Generals were compelled to employ very strong bodies of men to protect their transport trains from Mosby's men, whose continued daring raids created a feeling of alarm and insecurity amongst their enemies who never knew when and where to expect an attack. Night alarms and continuous successful raids, coupled with unsuccessful attempts at catching and punishing the raiders, made officers and men nervous and apprehensive, and the very mention of Mosby's name was disquieting. We read in the Federal despatches paragraphs like the following, which is an extract from a report sent in of a raid where Mosby's men had inflicted a disgraceful defeat on a party of Federals: "I have nothing to report except disgraceful mismanagement and consequent complete rout of our men. A board of investigation has been called to ascertain who is responsible."

General Halleck (a Federal General), writing to General Grant, says: "The two small regiments under General Augur have been so often cut up by Mosby's band that they are cowed and useless for keeping open communication."

On one memorable occasion Mosby attacked a very large train of supplies going to General Sheridan, and captured over 500 mules, 36 horses, 200 head of cattle and 208 prisoners; a great number of the Federal escort were killed and wounded, and nearly 100 wagons were destroyed with their contents. By way of retaliating Sheridan shot one and hanged six of Mosby's men who had fallen into his hands, and ordered the best cavalry regiment in the army of the Potomac (the 8th Illinois) to concentrate and exterminate as many of Mosby's gang as they could. This summary execution of Mosby's men, who, be it remembered, were prisoners of war and only did what the Federals expected their own guerillas to do, so exasperated the Rangers that Mosby ordered the execution (with General Lee's approval) of an equal number of Federal prisoners whom he had captured—a cruel revenge, and one that we should hardly have expected to see civilised men resorting to; but it appears to have had the desired effect, for we do not read of the Federals executing any more of Mosby's men.

The great difficulty Sheridan experienced in bringing up supplies for his army necessitated the reconstruction of the Manassas Gap railway which Stonewall Jackson had destroyed. Of course Mosby at once turned his attention to preventing the reconstruction of this line, and harassed the enemy incessantly by upsetting trains, shelling them, driving them back, and tearing up the rails as fast as they were laid. The cars were compelled to run at a very low rate of speed, as it was feared Mosby, by some strategem, would throw them off the

track. The trains were sometimes escorted by infantry guards, who walked by the side of the cars.

"With all these precautions," Williamson remarks, "mishaps would often occur." As an instance of what Williamson thus naively terms "mishaps," I will quote his account of what is known as the "Greenback Raid." "At ten o'clock at night on October 13th we halted at a deep cut in the rail-road which Nature seemed to have provided for our undertaking. The men were dismounted and a few were sent forward to displace some rails in this cut, where the cars could be thrown from the track with the least injury to the passengers. It was a clear starlight night, the air was chilly, and the men hurried through their work and lay down by the road-side.

Soon the sound of an approaching train broke on the stillness. Every one was on the alert, but the train rushed by leaving the astonished Rangers uncertain whether to mount their horses and start in pursuit, or simply sit down and cuss. Only one track had been obstructed, and the east bound train had passed safely on its way. Both tracks were now effectually blocked by elevating a rail of each track at an angle sufficient to enable the train to turn over gracefully and nestle gently in the cut. Between two and three in the morning the west bound train came rattling along at customary speed, and the engine performed the turn over trick to our most sanguine expectations, only one man, the engineer, being injured. As soon as the train came to a halt, Wiltshire and Dear ran down the bank and boarded the train; Wiltshire entering the car to his left, and Dear the car to his right. As Dear entered, he saw the car was filled with ladies and gentlemen and a few soldiers. As he demanded a surrender, a soldier in the far end of the car arose from his seat and drew a pistol. Dear fired on him and he fell. Noticing a group of five officers around the stove, Dear walked up to them and ordered them to surrender. He attempted to take a satchel from one of the officers, and as the man refused to give it up, his fellow officers told him he had better do so, or they would all be killed. The cause of his reluctance to part with the satchel was apparent to Dear when he handed over his prisoners to Colonel Mosby. To his surprise he then learned it was filled with greenbacks; that among his prisoners were Major Moore and Major Ruggles, paymasters, with their funds to the amount of 168,000 dollars."

In order to stop these attacks on railway trains the Federals took to sending some of Mosby's men, whom they

had captured, in every train in a carriage next the engine; so that, if Mosby attacked or derailed a train, he would run the risk of killing or maiming his own comrades. Of course the Rangers loudly denounced this expedient as unfair, but it did not deter them from attacking trains. Mosby said: "The Yankees are worse than the Chinese; they might as well place women and children in front of their lines of battle. My mode of warfare is just as legitimate as that of the army fighting in their front. I am placed here to annoy them and interrupt their communications as much as possible. This I intend doing, and should I again have an opportunity of throwing off a train, I will do it, even if I knew my own family were upon it."

Mosby's men captured another Federal General. Williamson narrates the account of the capture as follows:—

"Leaving the command concealed, Mosby took a few men and went out to reconnoitre the road. He observed a two-horse ambulance with an escort of 12 or 15 cavalymen coming from the direction of Winchester, and immediately started his men out to bag them. When they saw our men approaching, the driver of the ambulance put on all speed to get away, as did the escort. A long train was seen in the distance coming from Martinsburg, and their efforts were directed to reach it. Seeing this and fearing they would escape, Boyd Smith who, with a few others, was riding in a field almost abreast of the ambulance, which they were seeking to head off, shot one of the horses. This checked the progress of the ambulance, he and John Dickson jumped their horses over the stone fence into the road, capturing the ambulance and its occupants, *vis.*, one general, a captain, and a civilian who was driving and also carrying the mail. Three only of the escort were captured. The capture took place within a few hundred yards of the train, and as Boyd Smith and Dickson were hastening back to the command, they met Mosby bringing up his men to attack the train. "Colonel, here's your General," said Smith, as he saw Mosby advancing. Looking towards the General Mosby said: "Who are you?" "General Duffie," replied that worthy gentleman.

"Take him to the rear" said Mosby as he galloped up the road. Poor General Duffie was not only a prisoner, but his misfortune drew no word of sympathy from his superior officer. General Sheridan, in his report to General Halleck announcing the fact, says: "Brigadier-General Duffie was captured between Winchester and Martinsburg. I respectfully request his dismissal from the service. I think him a trifling

man and a poor soldier. He was captured by his own stupidity."

At last the Federals determined to cut diamond with diamond, and a Captain Blazer, a federal guerilla leader, was sent to operate with his men against Mosby. Captain Blazer was at first successful, but at length Mosby's men, pulled themselves together, successfully attacked Blazer and his men, and completely broke up the band, wounding and capturing Blazer himself who, when he came to himself after being knocked senseless, said: Boys, you've whipped us fairly. All I ask is that you treat us well."

At the close of 1864 Mosby met with an adventure which nearly cost him his liberty and his life. "He had gone to attend the wedding of one of his sergeants, when word was brought that a body of Federal Cavalry was only a few miles off. Without interrupting the wedding feast, he rode out with one of his men, Thomas Love, to reconnoitre. He came up with the Federals and, seeing them making fires, concluded they were going to encamp for the night. In reality they had only halted to warm themselves and rest. Mosby and his man stopped at the house of a friend to get supper, leaving their horses tied up at the front gate. In the middle of supper they heard the tramp of horses around the house. Mosby opened a door and saw a number of cavalrymen. He hastily closed it and turned to another door which then opened and a party of Federal officers and soldiers entered. As they came in he put up his hands to his coat collar to hide the stars, the emblem of his rank, as he knew his chances of escape would be better if he could conceal his identity. Just then shots were fired from the back yard, and a ball, passing through the window, struck him in the stomach. "I am shot," exclaimed Mosby. As the firing continued, the Federal officers and soldiers hurried out of the room, leaving Mosby with Love, Mr. Lake his host, and Lake's daughter Mrs. Skinner. He stepped into an adjoining room, pulled off his coat with the tell-tale stars, and, hiding it under a bureau, fell on the floor as if dead, for his wound was bleeding profusely. In a few moments the Federal officers returned and asked Mrs. Skinner who he was. She replied that he was a stranger to her. They then asked Mosby his name. He gasped a few words saying he was Lieutenant Johnson of the Sixth Virginia. The doctor with them examined his wound and pronounced it mortal. They then stripped him of his

boots and trousers and left the room. When Mosby felt satisfied that they had all left, he got up and walked into the room where Lake and his daughter were sitting, to their great astonishment, for they supposed him dead. Mosby himself thought his wound was mortal. His friends wrapped him up in a blanket and carried him to another house and the ball was extracted in the morning. But of course he was incapable of moving for a long time, and though the Federals, discovering what a prize they had let slip through their hands, searched for him high and low, they never took him, for an ambulance was always kept ready by his friends, and whenever the Federal search parties came near he was at once placed in the ambulance, and taken to some fresh hiding place. In the latter half of February 1865 Mosby returned to his command, and continued his work with as much vigour as before."

Though the Federals strained every nerve to break up Mosby's force, they never succeeded, for they continued to hold their own and occupy the same ground till after the surrender of General Lee in April 1865. General Hancock, who was at that time commanding the Federal forces in the Valley, then called upon Mosby to surrender on the same terms as those offered to General Lee. Mosby replied to his message as follows :—

"As yet I have no notice through any other source of the facts concerning the surrender of the army of Northern Virginia, nor, in my opinion, has the emergency yet arisen which would justify the surrender of my command. I am ready, however, to agree to a suspension of hostilities for a short time to enable me to communicate with my own authorities. I am ready to meet any person you may designate to arrange the terms of an armistice."

An armistice for ten days or so was granted, and on the last day of it Mosby, attended by some of his officers, went to a place called Millwood to have an interview with some Federal officers appointed by General Hancock to meet him. What occurred there is worth relating, and is described by Dr. Monteiro, one of Mosby's officers, as follows :—

"We arrived at Millwood almost at the exact hour that the truce expired. We found 15 Federal officers awaiting us in a large room in a hotel in the little village of Millwood. Mosby walked in rapidly followed by 20 of his officers. Taking a seat by one of the Federal officers he entered into ar-

earnest conversation with him. While we were engaged in this interesting interview within doors, some excitement was going on outside. The irrepressible Hern had accompanied us without any special invitation. He was a rough diamond in his own way, and did not recognise the difference between a diplomatic military mission and a regular raid. Hern had formed some acquaintance with the Yankee soldiers immediately on his arrival, and his ruling passion for the turf prompted him at once to propose a horse-race with this new made acquaintance. The challenged Yank accepted, and a spirited race was the immediate result. Hern had a vague suspicion that the Yankees had planned this meeting for the purpose of capturing Mosby and his officers. He had never mentioned his suspicions to any one; but in the race with his Yankee competitor an event occurred that ripened his suspicion into a certainty. Hern and his rival turfman, after testing the speed of their horses nearly a mile, ran into the solid ranks of a Federal brigade. No sooner did this faithful and zealous soldier discover the hostile array of blue uniforms than his suspicion of foul play became a fixed conviction. He abandoned the race and returned with an earnestness and speed that would have reflected some credit on the celebrated Don Quixote in his charge upon the Windmills. He came back breathless, excited, and alarmed for the safety of his admired and beloved leader. Just as Mosby and the Yankee General had entered upon the most interesting and important phase of their mission, with the strained attention of 30 or 40 officers bearing upon them, eagerly catching every word that escaped their lips; just as the potent and grave representative of Yankee authority announced to Mosby the fiat of his omnipotent judgment; just as he announced the imperative decree (looking the subtle and active guerilla chief full in the face): "The truce has ended, we can have no further intercourse under its terms"; at this moment Hern rushed into the room. With frantic gestures and hasty speech he reported the important result of his personal observations thus: "Colonel, Colonel," he exclaimed, "the infernal devils have sot a trap for you; I jist now run out about a mile and I found a thousand of 'em a hidin' in the bushes! They're in ambush; let's fight 'em! Colonel; darn 'em! Its a trick, its a trick to capture us!" With a look that I shall never forget, Mosby sprang to his feet, instantly grasping one of the weapons in his belt, and glaring upon the Yankee officers said in a loud and sharp voice: "Sir, if we are no longer under

the protection of our truce, we are of course at the mercy of your men. We shall protect ourselves."

"With that inimitable sign and gesture that so often had sent his gallant followers like a thunderbolt into the serried ranks of the foe he led the way with long and rapid strides to the door, closely followed by 20 silent but determined officers. It was a scene difficult to describe, but never to be forgotten. Every partisan was well prepared for instant death and more than ready for a desperate fight. Had a single pistol been discharged by accident, or had Mosby given the word, not one Yankee officer in the room would have lived a minute. With Hern's warning voice ringing in our ears we mounted our horses in silence, and Mosby led the way. His only word of command was—"Mount and follow me." We galloped rapidly from Millwood to the Shenandoah River, closely followed by a cloud of Yankee Cavalry."

Two or three days after the event thus described by Dr. Monteiro, Mosby, recognising that further resistance was useless, called his whole command together at Salem and formally disbanded them. A number of his followers accepted the terms offered by the Federals, though Mosby himself did not surrender till two months afterwards, *i.e.*, in June 1865. Subsequently, during the Presidency of General Grant, Mosby was appointed United State's Consul at Hong Kong. General Grant wrote of him as follows: "Since the close of the war I have come to know Mosby personally and somewhat intimately. He is a different man entirely to what I supposed. He is able and thoroughly honest and truthful. There were probably but few men in the South who could have commanded successfully a separate detachment in the rear of an opposing army, and so near the borders of hostilities as he did, without losing his entire command."

I think it is evident to all that the conditions under which Mosby and his Rangers carried on their method of warfare were peculiar to that particular war. The opposing forces were composed of men of one blood and one speech; the country in which Mosby's men operated was their own native land, and they were therefore thoroughly acquainted with every road and path; every village and farmhouse; every pass in the mountains. The inhabitants were, for the most part, their own acquaintances and friends, and the country was fairly open and well adapted to the rapid movements of mounted men. I imagine that the gallant Mosby himself would hesitate before giving an opinion as to how far his system could

be applied in a war, say between England and Russia in a country like Europe, in a land where we should be strangers to the country folk, and of different speech and appearance to our foes. It is obvious we could not go raiding into a Russian camp, dupe sentries, and carry off general officers prisoner. As I said at the beginning of this paper, I do not take as my text, "Go and do thou likewise." But could not we, by employing some modification of Mosby's tactics, harass an enemy, and produce such a feeling of nervous unrest (as Mosby did) so that an enemy would be compelled to detach troops from his front line to guard his flanks and rear. When I first read Williamson's book the perusal of what Mosby did came upon me, I confess, as a startling revelation of the possibilities of cavalry. And I ask you, as I asked myself, can what has been done once be done again, or is any modification of such warfare possible. I spoke to many officers in England and India of Mosby and his work, and I found so little was known of him that I ventured to hope a lecture on the subject might be interesting to you all, and I trust that it has been so.

General Collen said—

YOUR EXCELLENCY, LADIES, AND GENTLEMEN—

I shall not of course trench on the particular lessons that may be learnt from the lecture we have just heard.

The lecturer has given us a very graphic description of what can be effected by a daring leader in war such as Mosby undoubtedly was. Of course, as he said, the conditions with us would be entirely different. At the same time I venture to think that with some modifications much might be done, and it is more than probable that in the British and Native Army, too, we should find men just as adventurous and enterprising as Mosby was, although the methods would be different and the theatre of war, I will not particularise, would also be different.

Now I dare say you will remember that it was due to the great military genius of Lee and Jackson in that remarkable defence which they carried on for four years (and which was not merely a defence, but in which several counter-strokes were delivered) that they were able to resist for so long the superior Federal forces. It was not until Sherman and Grant were given full powers that they were able to overcome the inferior forces of the Confederates. Mosby was of the most enormous value then.

I have often thought that we, in the British Army, do not sufficiently study the campaigns that were waged in the Civil War of America. I remember my friend, General Chesney, expressing that

opinion ; and, if I might offer a suggestion, it would be that we should ask some one, Colonel Rundall for instance, to undertake to give us a lecture describing in a skeleton form the campaigns of the great war. Then after that other officers, who are fond of military history, might come forward and fill up the gaps. I believe it would be exceedingly instructive to all of us. For my part I can say I feel I have learned a good deal this afternoon.

General Elliot said—

YOUR EXCELLENCY, SIR EDWIN, AND GENTLEMEN —

I think, after hearing Colonel Rundall's interesting account of "Mosby's Rangers," we shall agree in thinking that Mosby was exceptionally gifted as a leader, and that had he stuck to the Regular Cavalry, in which his ability as a scout first brought him to notice, he would have doubtless made a name for himself.

Active, resolute, a fine horseman, and a practised pistol-shot, he was the beau ideal of an irregular leader. It is evident from the style of men he embodied and from their individual services, he had the gift of inspiring others with his own dash and intrepidity.

It is interesting to note his methods :—Choosing for preference night for his operations, with the advantage his absolutely accurate information secured for him, he timed his efforts, notwithstanding inferior numbers with the most astonishing success.

His system of dispersing his command after each affair was apparently original, in this and in holding on to, for lengthened periods, selected districts supposedly in the enemies' occupation, he appears to have acted differently to the majority of Cavalry Raid Leaders, both Federal and Confederate, whose general tactics were to make a sudden incursion with considerable bodies of mounted men, and after accomplishing their object to retire again within their own zone of the theatre of operations.

The discarding of the carbine and sabre for the revolver strikes us first as remarkable, but when we consider Mosby's favourite tactics were night surprises, and his chief object to

get to close quarters, also that his men were accomplished pistol-shots from their youth, reliance on the revolver as the main stand-by in the choice of weapons is not to be wondered at. At the same time

when we examine critically some of his recorded successes, such as the cutting out of General Stoughton from the midst

of hundreds of his own men in the middle of the night with only a squad of 29 Rangers to back him ; the burning and looting

of the convoy at Brandy Station where the officer in command had not even taken the trouble to see the mules unhitched ; and again the absolutely feeble attempt of Captain Flint with 2 squadrons of the 1st Vermont Cavalry to capture him and a party of 70 of his Rangers at the affair of Miskell's Farm, in which this ill-fated officer, who lost his life, appears to have acted without the most rudimentary knowledge of fighting his squadrons either mounted or on foot, we are forced to the conclusion that the Federals, even after the experience of several years in the field, at times, displayed the most extraordinary military inaptitude, thus opening the door for enterprising determined irregular leaders like Mosby.

The question is what can we learn from his methods ? I think it should accentuate to all cavalymen the power that really reliable information gives a leader—and the possibilities for night work for determined men, led fearlessly—even if numerically inferior ; but of course we must thoroughly recognise under circumstances favourable to this class of enterprise.

We have the undeniable authority of Prince Kraft for pointing out the inability of the German Cavalry, when accused by their detractors after the 1870 campaign, in regard to raiding in France : he arrives at the conclusion that it was not possible and would probably have ended in disaster had it been attempted.

At the same time (as conceded by the same distinguished German officer) it is evident the French had open to them the most splendid opportunities for carrying on a harassing warfare after Mosby's methods, had they but risen to the occasion.

All the data necessary for successful guerilla tactics were present, the whole country to a man devoted to them, a common language, and consequently the best possible information regarding the enemy. All that was wanting were the leaders and the men, neither of which the occasion produced !

Whether it was that the regular army had swallowed up all the available horse flesh, or from a racial disinclination to mounted work, or that the crushing defeats initially experienced had given them an exaggerated idea of the capabilities of the German troops, I do not know ; but when one considers the length and ramification of the German lines of communication, and the endless opportunities for destroying railways, attacking convoys and supply trains, and carrying out a general system of ceaseless harassment of the German field armies, the impression remains that, although the French did mobilise a certain number of "Franc Tireurs" and occasionally as the Germans owned, inflicted very heavy loss on them, they would have secured infinitely more important results, and taken great many more men from the fighting ranks of the Germans to keep them in check, had they adopted a system of mounted guerilla warfare on the lines of the American Irregular Leaders.

I think we may accept Mosby's definition of the value of guerrilla warfare as "in the numbers taken from the fighting ranks to keep them in check, rather than the actual damage done."

If this is correct, may we not assume (given a suitable terrain) that for the invaded, even if ill-success attends the initial efforts of their regular cavalry, a great possibility remains if Mosby's methods are followed by the right class of leaders and the right class of men are procurable to follow them?

I think Colonel Rundall is entitled to the best thanks of all cavalrymen present for his interesting and amusing lecture as it will probably draw attention to the many and varied practical lessons of the methods of mounted and dismounted fighting during the American War of Secession. The literature well pays perusal and is most fascinating reading to anyone who appreciates the field experiences of men as both on the saddle as on foot—more especially when we recollect they were to all intents and purposes our own kith-and-kin!

His Excellency the Commander-in-Chief said—

LADIES AND GENTLEMEN—

I have nothing to say except to thank Colonel Rundall for his very interesting lecture. We have all, I think, benefited from that, and the discussion which has followed, which we could have wished had been a little longer.

*On the motion of Sir E. Colleen,—*A vote of thanks was passed to His Excellency for presiding.

THE BRITISH SOLDIER IN INDIA.

BY MAJOR A. KEENE, D.S.O., ROYAL ARTILLERY.

The British soldier in India is a very important personage. As Kipling says, the "might, majesty, power and dominion of the British Empire in the East rest on the soles of his feet." All questions then referring to his health, training and treatment generally must be of great interest.

First as to his training. Every one who has been on service in any of our Indian wars will admit that though much honest work is done by officers and men in cantonments, yet when a British regiment takes the field it is soon apparent that its military training is, to say the least, imperfect. For instance in hill work, scouting and skirmishing, the British soldier is notoriously behind his native comrade. There are reasons to account for this fact. In the first place our young soldiers are year by year recruited more from towns and less from the rapidly disappearing agricultural class. Again, there are many months in the year when in stations in the plains it is very difficult to work the British soldier at all, and at some stations there are no hills within reasonable distance. But considering that British soldiers have off and on for the last fifty years taken part in numerous frontier expeditions, all involving hill work, it is hardly creditable to us that they have not received more training in hill work during peace time. Hill work requires special training apart from the physical portion of the task, and that is severe enough. It requires much practice before the wind and the muscles will carry a man through it without undue strain; and then we have only laid the foundation of the work. Yet, considering the facilities that do exist, it is extraordinary that more is not done in this direction. Some eight years ago the Officer Commanding the Sirhind District applied to have the three regiments at Subathu, Dagshai and Solon placed at his disposal for training in hill warfare. The proposal came to nothing though the difficulties connected with its execution can hardly have been

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had captured, in every train in a carriage next the engine; so that, if Mosby attacked or derailed a train, he would run the risk of killing or maiming his own comrades. Of course the Rangers loudly denounced this expedient as unfair, but it did not deter them from attacking trains. Mosby said: "The Yankees are worse than the Chinese; they might as well place women and children in front of their lines of battle. My mode of warfare is just as legitimate as that of the army fighting in their front. I am placed here to annoy them and interrupt their communications as much as possible. This I intend doing, and should I again have an opportunity of throwing off a train, I will do it, even if I knew my own family were upon it."

Mosby's men captured another Federal General. Williamson narrates the account of the capture as follows:—

"Leaving the command concealed, Mosby took a few men and went out to reconnoitre the road. He observed a two-horse ambulance with an escort of 12 or 15 cavalymen coming from the direction of Winchester, and immediately started his men out to bag them. When they saw our men approaching, the driver of the ambulance put on all speed to get away, as did the escort. A long train was seen in the distance coming from Martinsburg, and their efforts were directed to reach it. Seeing this and fearing they would escape, Boyd Smith who, with a few others, was riding in a field almost abreast of the ambulance, which they were seeking to head off, shot one of the horses. This checked the progress of the ambulance, he and John Dickson jumped their horses over the stone fence into the road, capturing the ambulance and its occupants, *vis.*, one general, a captain, and a civilian who was driving and also carrying the mail. Three only of the escort were captured. The capture took place within a few hundred yards of the train, and as Boyd Smith and Dickson were hastening back to the command, they met Mosby bringing up his men to attack the train. "Colonel, here's your General," said Smith, as he saw Mosby advancing. Looking towards the General Mosby said: "Who are you?" "General Duffie," replied that worthy gentleman.

"Take him to the rear," said Mosby as he galloped up the road. Poor General Duffie was not only a prisoner, but his misfortune drew no word of sympathy from his superior officer. General Sheridan, in his report to General Halleck announcing the fact, says: "Brigadier-General Duffie was captured between Winchester and Martinsburg. I respectfully request his dismissal from the service. I think him a trifling

man and a poor soldier. He was captured by his own stupidity."

At last the Federals determined to cut diamond with diamond, and a Captain Blazer, a federal guerilla leader, was sent to operate with his men against Mosby. Captain Blazer was at first successful, but at length Mosby's men, pulled themselves together, successfully attacked Blazer and his men, and completely broke up the band, wounding and capturing Blazer himself who, when he came to himself after being knocked senseless, said: Boys, you've whipped us fairly. All I ask is that you treat us well."

At the close of 1864 Mosby met with an adventure which nearly cost him his liberty and his life. "He had gone to attend the wedding of one of his sergeants, when word was brought that a body of Federal Cavalry was only a few miles off. Without interrupting the wedding feast, he rode out with one of his men, Thomas Love, to reconnoitre. He came up with the Federals and, seeing them making fires, concluded they were going to encamp for the night. In reality they had only halted to warm themselves and rest. Mosby and his man stopped at the house of a friend to get supper, leaving their horses tied up at the front gate. In the middle of supper they heard the tramp of horses around the house. Mosby opened a door and saw a number of cavalrymen. He hastily closed it and turned to another door which then opened and a party of Federal officers and soldiers entered. As they came in he put up his hands to his coat collar to hide the stars, the emblem of his rank, as he knew his chances of escape would be better if he could conceal his identity. Just then shots were fired from the back yard, and a ball, passing through the window, struck him in the stomach. "I am shot," exclaimed Mosby. As the firing continued, the Federal officers and soldiers hurried out of the room, leaving Mosby with Love, Mr. Lake his host, and Lake's daughter Mrs. Skinner. He stepped into an adjoining room, pulled off his coat with the tell-tale stars, and, hiding it under a bureau, fell on the floor as if dead, for his wound was bleeding profusely. In a few moments the Federal officers returned and asked Mrs. Skinner who he was. She replied that he was a stranger to her. They then asked Mosby his name. He gasped a few words saying he was Lieutenant Johnson of the Sixth Virginia. The doctor with them examined his wound and pronounced it mortal. They then stripped him of his

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"As yet I have no notice through any other source of the facts concerning the surrender of the army of Northern Virginia, nor, in my opinion, has the emergency yet arisen which would justify the surrender of my command. I am ready, however, to agree to a suspension of hostilities for a short time to enable me to communicate with my own authorities. I am ready to meet any person you may designate to arrange the terms of an armistice."

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the protection of our truce, we are of course at the mercy of your men. We shall protect ourselves."

"With that inimitable sign and gesture that so often had sent his gallant followers like a thunderbolt into the serried ranks of the foe he led the way with long and rapid strides to the door, closely followed by 20 silent but determined officers. It was a scene difficult to describe, but never to be forgotten. Every partisan was well prepared for instant death and more than ready for a desperate fight. Had a single pistol been discharged by accident, or had Mosby given the word, not one Yankee officer in the room would have lived a minute. With Hern's warning voice ringing in our ears we mounted our horses in silence, and Mosby led the way. His only word of command was—"Mount and follow me." We galloped rapidly from Millwood to the Shenandoah River, closely followed by a cloud of Yankee Cavalry."

Two or three days after the event thus described by Dr. Monteiro, Mosby, recognising that further resistance was useless, called his whole command together at Salem and formally disbanded them. A number of his followers accepted the terms offered by the Federals, though Mosby himself did not surrender till two months afterwards, *i.e.*, in June 1865. Subsequently, during the Presidentship of General Grant, Mosby was appointed United State's Consul at Hong Kong. General Grant wrote of him as follows: "Since the close of the war I have come to know Mosby personally and somewhat intimately. He is a different man entirely to what I supposed. He is able and thoroughly honest and truthful. There were probably but few men in the South who could have commanded successfully a separate detachment in the rear of an opposing army, and so near the borders of hostilities as he did, without losing his entire command."

I think it is evident to all that the conditions under which Mosby and his Rangers carried on their method of warfare were peculiar to that particular war. The opposing forces were composed of men of one blood and one speech; the country in which Mosby's men operated was their own native land, and they were therefore thoroughly acquainted with every road and path; every village and farmhouse; every pass in the mountains. The inhabitants were, for the most part, their own acquaintances and friends, and the country was fairly open and well adapted to the rapid movements of mounted men. I imagine that the gallant Mosby himself would hesitate before giving an opinion as to how far his system could

be applied in a war, say between England and Russia in a country like Europe, in a land where we should be strangers to the country folk, and of different speech and appearance to our foes. It is obvious we could not go raiding into a Russian camp, dupe sentries, and carry off general officers prisoner. As I said at the beginning of this paper, I do not take as my text, "Go and do thou likewise." But could not we, by employing some modification of Mosby's tactics, harass an enemy, and produce such a feeling of nervous unrest (as Mosby did) so that an enemy would be compelled to detach troops from his front line to guard his flanks and rear. When I first read Williamson's book the perusal of what Mosby did came upon me, I confess, as a startling revelation of the possibilities of cavalry. And I ask you, as I asked myself, can what has been done once be done again, or is any modification of such warfare possible. I spoke to many officers in England and India of Mosby and his work, and I found so little was known of him that I ventured to hope a lecture on the subject might be interesting to you all, and I trust that it has been so.

General Collen said—

YOUR EXCELLENCY, LADIES, AND GENTLEMEN—

I shall not of course trench on the particular lessons that may be learnt from the lecture we have just heard.

The lecturer has given us a very graphic description of what can be effected by a daring leader in war such as Mosby undoubtedly was. Of course, as he said, the conditions with us would be entirely different. At the same time I venture to think that with some modifications much might be done, and it is more than probable that in the British and Native Army, too, we should find men just as adventurous and enterprising as Mosby was, although the methods would be different and the theatre of war, I will not particularise, would also be different.

Now I dare say you will remember that it was due to the great military genius of Lee and Jackson in that remarkable defence which they carried on for four years (and which was not merely a defence, but in which several counter-strokes were delivered) that they were able to resist for so long the superior Federal forces. It was not until Sherman and Grant were given full powers that they were able to overcome the inferior forces of the Confederates. Mosby was of the most enormous value then.

I have often thought that we, in the British Army, do not sufficiently study the campaigns that were waged in the Civil War of America. I remember my friend, General Chesney, expressing that

opinion ; and, if I might offer a suggestion, it would be that we should ask some one, Colonel Rundall for instance, to undertake to give us a lecture describing in a skeleton form the campaigns of the great war. Then after that other officers, who are fond of military history, might come forward and fill up the gaps. I believe it would be exceedingly instructive to all of us. For my part I can say I feel I have learned a good deal this afternoon.

General Elliot said—

YOUR EXCELLENCY, SIR EDWIN, AND GENTLEMEN —

I think, after hearing Colonel Rundall's interesting account of "Mosby's Rangers," we shall agree in thinking that Mosby was exceptionally gifted as a leader, and that had he stuck to the Regular Cavalry, in which his ability as a scout first brought him to notice, he would have doubtless made a name for himself.

Active, resolute, a fine horseman, and a practised pistol-shot, he was the beau ideal of an irregular leader. It is evident from the style of men he embodied and from their individual services, he had the gift of inspiring others with his own dash and intrepidity.

It is interesting to note his methods :—Choosing for preference night for his operations, with the advantage his absolutely accurate information secured for him, he timed his efforts, notwithstanding inferior numbers with the most astonishing success.

His system of dispersing his command after each affair was apparently original, in this and in holding on to, for lengthened periods, selected districts supposedly in the enemies' occupation, he appears to have acted differently to the majority of Cavalry Raid Leaders, both Federal and Confederate, whose general tactics were to make a sudden incursion with considerable bodies of mounted men, and after accomplishing their object to retire again within their own zone of the theatre of operations.

The discarding of the carbine and sabre for the revolver strikes us first as remarkable, but when we consider Mosby's favourite tactics were night surprises, and his chief object to get to close quarters, also that his men were accomplished pistol-shots from their youth, reliance on the revolver as the main stand-by in the choice of weapons is not to be wondered at. At the same time

when we examine critically some of his recorded successes, such as the cutting out of General Stoughton from the midst of hundreds of his own men in the middle of the night with only a squad of 29 Rangers to back him ; the burning and looting

of the convoy at Brandy Station where the officer in command had not even taken the trouble to see the mules unhitched ; and again the absolutely feeble attempt of Captain Flint with 2 squadrons of the 1st Vermont Cavalry to capture him and a party of 70 of his Rangers at the affair of Miskell's Farm, in which this ill-fated officer, who lost his life, appears to have acted without the most rudimentary knowledge of fighting his squadrons either mounted or on foot, we are forced to the conclusion that the Federals, even after the experience of several years in the field, at times, displayed the most extraordinary military inaptitude, thus opening the door for enterprising determined irregular leaders like Mosby.

The question is what can we learn from his methods? I think it should accentuate to all cavalymen the power that really reliable information gives a leader—and the possibilities for night work for determined men, led fearlessly—even if numerically inferior ; but of course we must thoroughly recognise under circumstances favourable to this class of enterprise.

We have the undeniable authority of Prince Kraft for pointing out the inability of the German Cavalry, when accused by their detractors after the 1870 campaign, in regard to raiding in France : he arrives at the conclusion that it was not possible and would probably have ended in disaster had it been attempted.

At the same time (as conceded by the same distinguished German officer) it is evident the French had open to them the most splendid opportunities for carrying on a harassing warfare after Mosby's methods, had they but risen to the occasion.

All the data necessary for successful guerilla tactics were present, the whole country to a man devoted to them, a common language, and consequently the best possible information regarding the enemy. All that was wanting were the leaders and the men, neither of which the occasion produced !

Whether it was that the regular army had swallowed up all the available horse flesh, or from a racial disinclination to mounted work, or that the crushing defeats initially experienced had given them an exaggerated idea of the capabilities of the German troops, I do not know ; but when one considers the length and ramification of the German lines of communication, and the endless opportunities for destroying railways, attacking convoys and supply trains, and carrying out a general system of ceaseless harassment of the German field armies, the impression remains that, although the French did mobilise a certain number of "Franc Tireurs" and occasionally as the Germans owned, inflicted very heavy loss on them, they would have secured infinitely more important results, and taken great many more men from the fighting ranks of the Germans to keep them in check, had they adopted a system of mounted guerilla warfare on the lines of the American Irregular Leaders.

I think we may accept Mosby's definition of the *value* of guerilla warfare as "in the numbers taken from the fighting ranks to keep them in check, rather than the actual damage done."

If this is correct, may we not assume (given a suitable terrain) that for the invaded, even if ill-success attends the initial efforts of their regular cavalry, a great possibility remains if Mosby's methods are followed by the right class of leaders and the right class of men are procurable to follow them?

I think Colonel Rundall is entitled to the best thanks of all cavalrymen present for his interesting and amusing lecture, as it will probably draw attention to the many and varied practical lessons of the methods of mounted and dismounted fighting during the American War of Secession. The literature well pays perusal and is most fascinating reading to anyone who appreciates the field experiences of men as bold in the saddle as on foot—more especially when we recollect they were to all intents and purposes our own kith-and-kin!

His Excellency the Commander-in-Chief said—

LADIES AND GENTLEMEN—

I have nothing to say except to thank Colonel Rundall for his very interesting lecture. We have all, I think, benefitted from that, and the discussion which has followed, which we could have wished had been a little longer.

*On the motion of Sir E. Collen,—*A vote of thanks was passed to His Excellency for presiding.

THE BRITISH SOLDIER IN INDIA.

BY MAJOR A. KEENE, D.S.O., ROYAL ARTILLERY.

The British soldier in India is a very important personage. As Kipling says, the "might, majesty, power and dominion of the British Empire in the East rest on the soles of his feet." All questions then referring to his health, training and treatment generally must be of great interest.

First as to his training. Every one who has been on service in any of our Indian wars will admit that though much honest work is done by officers and men in cantonments, yet when a British regiment takes the field it is soon apparent that its military training is, to say the least, imperfect. For instance in hill work, scouting and skirmishing, the British soldier is notoriously behind his native comrade. There are reasons to account for this fact. In the first place our young soldiers are year by year recruited more from towns and less from the rapidly disappearing agricultural class. Again, there are many months in the year when in stations in the plains it is very difficult to work the British soldier at all, and at some stations there are no hills within reasonable distance. But considering that British soldiers have off and on for the last fifty years taken part in numerous frontier expeditions, all involving hill work, it is hardly creditable to us that they have not received more training in hill work during peace time. Hill work requires special training apart from the physical portion of the task, and that is severe enough. It requires much practice before the wind and the muscles will carry a man through it without undue strain; and then we have only laid the foundation of the work. Yet, considering the facilities that do exist, it is extraordinary that more is not done in this direction. Some eight years ago the Officer Commanding the Sirhind District applied to have the three regiments at Subathu, Dagshai and Solon placed at his disposal for training in hill warfare. The proposal came to nothing though the difficulties connected with its execution can hardly have been

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insurmountable. In addition to the battalions actually stationed in the Himalayas, who could so easily have been trained in hill work, hundreds of our young soldiers are annually sent up to convalescent depôts in the hills. A month or six weeks pass, and these lads, with the buoyant constitution of youth, regain at least ordinary good health; they are seen running about the hill-sides in pursuit of butterflies, or playing cricket and foot ball. Yet they are not called on to do any work, but an occasional dull route march. Why should not these men be trained in hill work? It is not proposed that they should be worked hard, but surely they might be instructed in outpost work in the hills or in forming advanced and rear guards, or how to picquet the hills in order to secure the passage of a convoy.

It is imperatively necessary that the hill training of British Infantry should be taken seriously in hand at once, unless we wish to have a repetition of what happened in Tirah. In that campaign, impartial critics, correspondents for the English papers, gave all the praise to the Sikh and the Gurkha. It was only at Dargai when he thoroughly understood the job that the British soldier equalled, if he did not surpass, his native comrade. This inferiority of the British soldier in hill working, scouting, etc., was recognized by at least one man in the British ranks as is shown by the letter that was read at the meeting in behalf of the Indian Heroes' Fund. The writer of the letter remarked somewhat as follows: "For this work Johnny Gurkha is the boy; if I am worth a shilling a day, he is worth two."

Secondly, there is the very important question of shooting. A great deal of pains is taken with musketry, but this is nearly all target shooting at well-defined objects at measured distances. Although this is absolutely necessary, surely it is only the beginning of training in shooting. Why is so little done in the direction of shooting under service conditions as practised in the artillery? Even at brigade field firing, which is supposed to represent service conditions, the targets are often placed in very conspicuous positions, and in some cases jungle is cleared to enable the men to see the targets distinctly, thus defeating one of the objects of the practice. We want more practical work, though we can hardly follow the example of that great frontier soldier John Coke. There is a tradition that he used to stand on the hillside with a heap of stones near him, and one or two sepoy to supply ammunition.

A company of his regiment would then be told to skirmish up towards him, while he threw his small rocks at any one who exposed himself.

For the encouragement of good shooting a suggestion has lately been offered by some writers on military subjects, *vis.*, that of granting shooting pay. The Queen's Regulations urge on commanding officers that, in assessing a man's character, they should take his soldierly qualities into consideration as well as his moral ones. The introduction of shooting pay would be entirely consistent with this policy. The commanding officer should have power over this shooting pay just as he has over a man's good-conduct pay. It should be easily taken away and easily restored, so that a man may be rewarded for good shooting and punished for bad without the irksome formalities that hedge most military proceedings.

To come to the question of the health of the British soldier in India. Immense efforts are made now-a-days to look after this, but these efforts are to a great extent frustrated by the fact that the health of a large proportion of the men is undermined by venereal disease. This is well-known, and many devices have been tried to combat this dreadful danger.

• G. O. No. 1148 of 1897. The Cantonment Act of 1897* is, we maintain, of absolutely no help in this direction. Under rule 9 of the above Act, if a medical officer has *prima facie* grounds for believing that any person living in cantonments is suffering from a contagious disease, he may call upon such person to attend at his hospital. Whence is he to draw his *prima facie* conclusions. Again, rules 11 and 12 prohibit the residence of women of bad character within cantonments, but this is useless if, as often happens, the cantonment boundary runs close to barracks and these women can live within the civil limits and yet close to barracks.

Rule 13 is rendered null and void by a proviso which calculates on assistance from the men themselves. We read of the British soldier being made to wear rough flannel next his skin in the hot weather, and thus tortured to prevent his getting a chill, yet we do not help him to guard against a much more serious danger.

There is one simple, drastic remedy which is within the power of a strong government like the Government of India, and that is, the removal of temptation from our young soldiers, who in this country are severed from the influences of their

own women folk. Officers, who ask the civil authorities to take steps to drive away women of loose character from places close to their men's barracks, are informed that "Prostitution is no crime." Well, we must make it a crime within a stated distance from our British soldiers' barracks. At present we could point out stations where these women are allowed to live openly within a mile of barracks.

Another thing that would help to improve matters in this respect would be to allow many more married men on the establishment. This would cost money, but nothing could be more wasteful than the present system under which so many men pass months in hospital, have their lives ruined, and are eventually invalided to England, while Government has to pay for others to come out to replace them. It is calculated that every British soldier costs £100 landed in India; this sum would almost build a married quarter and pay the allowance for a married man for some years.

Again, men who go to hospital for disease, which is the result of their own imprudence, ought to be made to pay higher hospital stoppages. At present it is not uncommon to see a man, who has been lying for months in hospital suffering from venereal disease, come out and draw perhaps Rs. 100 pay which has accumulated to his credit during the time. That money would have paid married allowance for one man for a year.

The personal influence and example of officers will in time have a good effect, but this is a slow working measure.

This mention of making soldiers wear flannel in very hot weather puts us in mind of another well-meant but injudicious order that is often issued in the hot weather, *vis.*, that the men are not to leave their rooms between certain hours of the day for fear of the sun. Against this we strongly protest. How can we get tough, hardy men by such proceedings? A barrack is not an establishment for invalids. Let the men be encouraged to use their own sense in this matter. Let company officers give them some simple rules, such as always to wear their helmets when in the sun, not to go out in the heat of the day after a heavy meal with a lot of beer inside them, but do not treat them all as if they were delicate young ladies. We want hardened men inured to heat. Let them knock about in the sun fishing, shooting, playing cricket, etc. It is better that the sickly ones should get invalided than that the whole battalion should be kept

under cover by orders. What would be the good of a battalion of a thousand men who were kept out of hospital by such means? Surely it would be preferable to have a third of them in hospital, and the balance good, hardy, tough soldiers accustomed to heat and acclimatised to exposure in the sun.

The food a man eats is an important factor as regards his health. Every one will admit that granted that the food is good to start with, it must be well cooked and the kitchen kept clean. But under the present system neither result is secured. There are too many cook boys about the kitchen, and the utensils provided do not allow of really good cookery. The native cook has one regulation way of cooking the ration meat and vegetables, so to secure variety many men order little dishes for themselves. This leads to waste and dirt, for these little dishes are cooked in any old earthen pipkin or broken down mess-tin, any old receptacle the native cook can pick up, and these receptacles are seldom clean. The regulation utensils, the Flander's kettles, are inspected and kept clean, but no quartermaster can inspect all the heterogeneous vessels required under the present system.

The remedy is simple: provide good cooking ranges and adopt the system of army cookery used at home which ensures variety. One British soldier per company would superintend and under him would be one or two native cooks, fewer in number and better in quality than those at present employed. A committee went into the whole question years ago and reported in the above sense, but nothing has been done to give effect to their recommendations. A better class of native cook could be secured by the following expedient: Let one non-commissioned officer in each room have charge of the messing as at home, and let no one but him and the cook-orderly give any orders whatever to the cooks. At present each cook has about twenty masters, and each man who orders a separate dish thinks he has a right to abuse the cook. What officers' mess could get on with such a system? In what club are individual members allowed to scold the servants?

For active service and the line of march steel or aluminium cooking utensils could be kept in the Quarter-master's stores. The question of expense again arises, but nothing is so expensive as a sick soldier, besides in course of time the whole expense would be recovered by the abolition of the necessity

of tinning. Let the Commissary-General be asked for a report on the cost of tinning the cooking utensils of one battalion in a single twelve months.

The total abolition of rum from the canteen would be a great gain. Our young soldiers, who come out from home, have rarely tasted spirits in any form. Beer is their only drink in England, and there is no reason in teaching them to drink spirits. Beer may not be an ideal drink for the tropics, but it is not a bad one for our young soldiers whose food is not rich, especially if the beer is not mixed with any other form of alcohol. At any rate it is almost impossible for a man to get alcoholic poisoning or *delirium tremens* if he sticks to malt liquor alone.

At the beginning of this article we referred to the helplessness of some British regiments when they start on a campaign. We will give some concrete instances of this. On one occasion a British regiment starting on a frontier expedition was railed to the foot of one of the passes. Next day it should have marched with camel transport, but the men were absolutely unable to get their kits and tents on to the camels, and after many hours of fruitless struggling they had to sit down where they were and begin all over again next day. Later on, while marching in hilly country, the baggage guard of the same regiment arrived one morning in camp with some twenty tents short. The camelmen had been impressed for this march, and watching their opportunity some of them disappeared during the march with camels, loads and all, and no one could tell where they had gone to.

Now we do not for one moment wish to insinuate that the British soldier has deteriorated, or that he is in any way inferior to his native comrade in arms. Those who have read the history of our army in India must know that during the course of the present century the British soldier has defeated the Sikhs and the Gurkhas, the Sikhs in the plains of the Punjab and the Gurkha in his own hills. The man is all right ; it is our treatment and our training that are wrong. After the withdrawal from Tirah, when our troops were in and near the Khyber waiting and anxious for a spring campaign, officers of British regiments began to train their men properly on the hill-sides. There is good reason to think that had there been a spring campaign, the Afridis would have been rather surprised at the difference. We soon get our second wind and improve as the fighting goes on. But this is not all that is

required ; we must prepare our men in time of peace for hill warfare. The men are ready and willing to learn anything that they know to be practical. Lord Roberts himself years ago inveighed against the senseless repetition of purely parade manœuvres ; we have the authority of another great soldier, Prince Kraft, against such shows as the performance of the manual or bayonet exercises by a large body of men together ; he stigmatises it as mere theatrical nonsense. Yet these things are demanded at inspections, and part of the short drill season is wasted on them. We say, take the men out on the hill-side, knock them about in camp, put them on service rations of tinned meat and biscuit if necessary, there will not be a murmur as long as the work is made practical and interesting. It is boredom that the British soldier in India suffers from, relieve him from that and he will be happy though hard worked

And now we come to the treatment of the soldier generally. We offer on this point several suggestions :—

First, let us all, civilians as well as officers, combine to drop the term Tommy Atkins. It is true one version of the origin of this term is complimentary. It runs as follows : At Lucknow, during the mutiny, it was decided to draw all our resources into the Residency. A party of our people on their way thither came across a British soldier of the 32nd Duke of Cornwall's Light Infantry, posted as sentry on an outlying point. They asked the man to accompany them, but with true soldierly spirit he declined to leave his post without proper authority, and staying there was shortly after killed by the rebels. The name of this solid and unpretentious hero was Thomas Atkins ; hence thereafter, when any brave deed was done, people would say of the doer that he was a regular Tommy Atkins. This story is taken from a very sympathetic article by the Reverend E. J. Hardy in the March number of the United Service Magazine. The term, however, as he points out, is now frequently used in a condescending or pitying manner.

Another point remains that we neglect. Every corps in the British Army has a glorious history. Let each soldier be taught at least the history of his own regiment or battery, let him know what a heritage of glory is his, and that the credit and renown of his own corps is a sacred trust handed down to him from his predecessors. It is a mistake to suppose that the British soldier, though cold and phlegmatic at times and very shrewd at recognizing clap trap, is insensible

to such influences as are here indicated. He has a keen appreciation of heroism, and we may be sure that in the last battle, in which he distinguished himself, the battle of Omdurman, he fought all the better for the battle cry of "Remember Gordon and Khartoum."

Furthermore, let us keep the officers more with the men. At present far too many officers are away from their regiment, a gymnastic course here, signalling there, musketry at another place, garrison instruction somewhere else. Surely musketry, gymnastics, and the subjects under headings (c) and (d) can be taught regimentally. At any rate, if not now, this must be done in the near future. The spirit of an army is in its officers, and officers and men must be closely associated, so that the best work may be got from all on active service.

In the next place, let us insist on the British soldier doing all his own proper work. The regulations (Army Regulations, India, Volume II, Discipline) forbid the employment of natives about barracks in the capacities of barbers, shoe-blacks, etc., etc., but this order is seldom enforced. The men become gradually lazier and more helpless. Every man ought to shave himself, to keep his own part of the barrack-room clean and to clean his own kit and accoutrements. No native should under any circumstances be allowed to enter the barrack room, the sweepers only should come to the verandahs and remove thence the sweepings of the rooms. The work will then be better done, and a little employment at any rate provided which a man can do in the hottest day under cover. In connection with this point it should be borne in mind that the fewer natives there are about barracks, the less chance there is of native liquor being smuggled in. The low class cook boys, barbers, etc., are the culprits in this matter, and imagination shudders at the thought of what the British soldier, who has imbibed a craving for spirit, may get to drink at the hands of these wretches.

Perhaps the worst feature in our treatment of the British soldier lies in the fact that some officers seem actually to mistrust the splendid material lying ready to their hands. They see the soldier in peace time, crammed with meat and drink, rendered lazy by his surroundings; they see him like Yeshurun's kine "wax fat and kick"; they see him often giving way to drink, idleness and debauchery; careless apparently of the present and the future. But consider his temptations, read the old books about India and see what lives were led by

officers sixty years ago when they came out never expecting to see their homes again and seldom meeting a good woman to influence them. The officers of those days drank and gambled and gave way to low animal pleasures generally, why then be impatient of the soldiers in the ranks?

Let officers who are at any time disheartened by the conduct of their men, and we admit that they are at times trying, let them, we urge, read the histories of the Peninsular and Crimean Wars and of the Mutiny Campaign. What does Napier say of the British soldier in the Peninsula? At page 401, Volume II, we find the following passage: "No honours awaited his daring, no despatch gave his name to the applause of his countrymen, his life of danger and hardship was uncheered by hope, his death unnoticed. Did his heart sink therefore? Did he not endure with surpassing fortitude the sorest of ills, sustain the most terrible assaults in battle unmoved, overthrow, with incredible energy, every opponent, and at all times prove that, while no physical military qualification was wanting, the fount of honour was also full and fresh within him."

Look at the pictures in Sir Evelyn Wood's book about the Crimea, and see the British soldier with his feet in broken boots standing in the snow in his ragged clothes, a blanket wrapped round him. There he is shivering with cold, famished with hunger, dying at his post, his loyalty and devotion unshaken to the last. Is there not something pathetic in the story of how, when spring had come after that dread winter and better food and clothing had arrived, an officer consulting with his colour sergeant about the condition of his men received the answer—"Oh its all right now, sir; the men are beginning to swear again."

In the Mutiny the worst passions of our men were excited, but yet, at the final relief of Lucknow, we have a story of the generosity of the soldiers. A company of the 93rd got a valuable piece of loot at one place and presented it to one of their officers who, as they knew, was a poor man, so that he might be able to purchase his step with the proceeds of its sale.

In the article by the Reverend E. J. Hardy, the army chaplain already referred to, he says that, after twenty years experience, he has learnt to know and to respect the British soldier. One thing he remarks makes a chaplain's work among soldiers pleasant, there is no hypocrisy among them. Ask ladies who work among soldiers, ask the nursing sisters about the British soldier; the answer will be to his credit. He is a

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chivalrous man, rare indeed is it to hear of a soldier offering rudeness to any good, modest woman.

Here then is a character! A man without deceit, chivalrous, one that has the fount of honour within him, one that seldom or never betrays a comrade. Officers entrusted with the care of such men have a great trust, and they will find that any trouble taken to foster the good qualities of their men will be better repaid than that spent in merely looking after their creature comforts.

THE CREATION AND MAINTENANCE OF A RESERVE OF OFFICERS FOR THE INDIAN ARMY.

BY CAPTAIN R. T. CROWTHER, 23RD PIONEERS.

“Nil desperandum Teucro duce et auspice Teucro.”

That the Indian Army is under-officered for the purposes of active service is a question that no one will be found to deny, while the problem as to how the deficiency is to be made good without adding very considerably to the military estimates is difficult of solution.

During times of peace, it may be said that native regiments have a sufficiency of British officers for all practical purposes; at any rate as large a number as is consistent with the Indian Exchequer. We may even go further and say that in the opinion of some, who are qualified to speak with weight, a permanent increase would be undesirable for several reasons other than financial.

For instance, it might be argued that a permanent augmentation would tend to deprive junior officers of the necessity that now exists of their taking upon themselves the responsibility of positions above their own—a system that gives them self-reliance, and a great influence over the native ranks.

Again, that it would block advancement in a service where promotion is already slow, and consequently either disgust a large body of officers or necessitate some system of compulsory retirement under age clauses, thus destroying the Staff Corps as a real profession, while increasing the non-effective sterling charges.

Yet again, that it would restrict instead of develop the capacities of the native officers who are at present only just beginning to grasp the idea that their position is one, not of *otium cum dignitate*, but one that carries with it real responsibilities in the shape of training their companies up to the standard that modern warfare requires.

As regards this latter argument, some might say “Do away with the native officer” altogether, but experience would reply that the native officer is a very necessary link between the British officer and the men, a sort of bridge between classes of totally distinct customs and feelings which can never be in

real unison, and that, this being the case, it is best to educate him to a higher standard than that to which he has at present attained. If the companies in native regiments were to be commanded by British officers, the doom of the native officer would be sealed.

At any rate, the argument of expense is weighty enough to prevent any large increase in the number of British officers, while the subject chosen for this year's essay points to the idea that the step contemplated is the power of expansion rather than any great permanent addition—an expansion that can take place on the outbreak of war.

For it is on active service that the British officer is required, a time when there is no substitute possible for him, and a time when he is required in far larger numbers than under the present constitution he can be supplied. Instances are by no means few where native officers have come to the front in cases of emergency in a way to command the greatest admiration, but this is not sufficient. The British officer as leader is necessary with British troops, and he is no less necessary with native. When all is said and done, it is the regimental officer that has always won our battles, and who will continue to win our battles. Without him, our battles will not be won, and judging from recent experiences, it is not too much to say that in a protracted campaign, with only the present complement of British officers, native regiments might find themselves without a single British officer just at the critical moment when his presence might turn the tide or enable a fleeting opportunity to be seized.

Should the Indian Government ever find itself in the position of having to face a hostile combination from within, or from without, or from both directions (and who is there bold enough to deny that such can ever be the case when European powers are displaying such activity beyond the confines of their own territories at the present moment), it will find itself in dire distress unless it has many more officers fitted for service with native troops than at present. And not merely is the power of expansion necessary, but such expansion must be able to provide officers who know and are known of, the men they are to command, their languages and their customs.

Herein lies the whole gist of the matter. Doubtless a British officer, merely because he is such, would be useful as a leader, but his utility would be very much diminished and curtailed on continuous service unless he were to know something of the men he commanded, their language, their customs,

and their requirements. To really carry native troops with him, the British officer must be recognised by them as a friend, as a protector who cares for their wants, who knows their customs, and who can talk to them in their own language. The native soldier has a natural dread even in time of peace of the introduction into his regiment of a senior officer whom he does not know, for the simple reason that he feels a stranger is not in touch with him in his peculiarities, his needs, his good points and may be even his peccadilloes. Even if he has made a slip in the past, he prefers an officer who, perhaps on account of this very mistake, recognises him and picks him out for a separate word occasionally to a stranger. There is nothing scarcely that British officers who know the native ranks cannot get out of them. The latter are like children and lean on the faith that the *Sarcar* in the shape of their *Sahibs* will take care of them, lead them to victory, bring them back again, give them leave, promotion, pension, and finally recommend them, may be, for a few acres of land.

With the British soldier the case is somewhat different, though without doubt the more he knows his officer the better, nevertheless he will follow him, merely because the latter is an officer. This is a matter of "*Caste*,"—a principle by no means confined to India. For centuries the class, which provides the British soldier, has looked up to that which finds the British officer as something superior, and even education with the socialism that follows in its immediate wake has not yet eradicated the custom of generations. This case of the British soldier is touched upon here, as it has a direct bearing on one of the proposals which will be made for the expansion of the supply of British officers with native troops on service, and which are based on the following assumptions:—

- (a) That, while in time of peace there is a sufficiency of British officers with native troops, the proportion is quite inadequate for war purposes.
- (b) That it is necessary to create and maintain a reserve of British officers for employment in time of war with native troops, at as small expense as possible.
- (c) That these British officers must have some knowledge of the class of men they are to command, and be able to understand and talk their language.
- (d) That the knowledge of the men by officers is not so necessary in the case of British as in that of native troops.

Of course the solution of the problem would be very much easier if it were not for the question of expense, but this being a most potent factor, it is necessary to devise some scheme which will enable Government to obtain what it wants when the need arises, while paying in the interim as little as possible.

With this view the following proposals are put forward, as a means of providing a reserve of, in the first instance, two hundred officers:—

First, then it is considered that a number of Staff Corps officers would be glad to enter a reserve after completion of 20 years' service for a term of five years if a moderate pension were granted them. At the end of the five years they would be placed on the retired list.

If twenty officers elected this scheme annually for five years, there would then be a reserve of one hundred officers, which could be maintained at this strength. To take their place on the active list, twenty more subalterns would be admitted to the Staff Corps annually.

The questions that immediately arise are—

- (a) Are the officers forthcoming for the reserve?
- (b) What would the cost of the scheme be?
- (c) How would the reserve officers be employed when called out for service?
- (d) What are the advantages of the scheme?

To discuss these questions in detail:—

(a) It is believed that, if the reserve pay were sufficient, there would be no difficulty in forming the reserve. There are many officers of 20 years' service whose prospects of obtaining command of a regiment are not very bright, who would be glad to retire to England for good except in the case of outbreak of war, if they could afford to do so. It is thought that reserve pay of £400 per annum (*i.e.*, £50 per annum less than the furlough pay of an officer of 19 years' service) with a pension of the same amount at the end of five years' reserve service would attract sufficient numbers.

(b) What would the cost of the scheme be?

Supposing reserve pay of £400 per annum were given, and taking the rate of exchange at one and four pence, the annual pay of each officer comes to Rs. 6,000, or for five years amounts to Rs. 30,000.

The pay proper of each subaltern, who would fill each vacancy, would be Rs. 225 per mensem = Rs. 2,700 per annum = Rs. 13,500 for five years.

The pay proper (*i.e.*, exclusive of half pay) of each of the reserve officers, if they had remained on the active list, would be—

| | | Rs. |
|------------|--------------------------|---------------|
| 4 years at | ... 640 per mensem ... | 30,720 |
| 1 year at | ... 827 per mensem ... | 9,924 |
| | Total for five years ... | <u>40,644</u> |

We thus get for the first five years the following figures:—

The reserve pay of each officer *plus* the pay proper of each subaltern against the pay proper of the reserve officer, had he remained on the active list, *i.e.*—

Rs. 30,000 + Rs. 13,500 against Rs. 40,644, or a loss in five years per officer of Rs. 2,856, or in round numbers an extra cost of Rs. 50 per mensem per officer.

But to trace these calculations onwards for another five years, during which period the subaltern officer would still be a subaltern, we get the following result:—

| | Rs. |
|--|---------------|
| Pay per reserve officer for five years ... | 30,000 |
| Pay per subaltern for five five years ... | 13,500 |
| Total ... | <u>43,500</u> |

Against.

| | Rs. |
|--|--------|
| Pay proper of each reserve officer, had he remained on the active list for five years, at Rs. 827 per mensem ... | 49,620 |
| or a saving for five years of ... | 6,090 |

per officer, or Rs. 100 per mensem.

As far as actual pay is concerned, it appears therefore that under this scheme each extra subaltern officer would cost in round numbers fifty rupees per mensem for the first five years, while in the second five years there would be a saving on his account of one hundred rupees per mensem, *e.g.*—

| | Rs. |
|---|--------------|
| 1st five years, loss ... | 3,000 |
| 2nd five years, gain ... | 6,000 |
| Total gain per officer in 1st ten years ... | <u>3,000</u> |

The question of pension for these extra officers must next be considered. An insurance company would guarantee a

deferred annuity of £700 per annum to a man serving in India from the age of 52, if the age at entry were 20 years for an annual payment approximately of £114 and probably if a large number of entries were regularly guaranteed, a company, taking into consideration that a certain portion would not live to draw the annuity, might be able to do the business at a less cost. It might therefore be said that the pension of £700 per annum granted by Government to an officer after 32 years' service costs about £100 per annum for 32 years.

Against this extra cost of £100 per annum might be placed the fact that the pension of the reserve officers would be only £400 per annum instead of one of £500 per annum after 30 years' service, or £700 per annum after 32 years' service.

Taking everything into consideration, it would probably be a fair calculation if the extra expense for each extra officer obtained under that scheme were placed at £100 per annum.

Should the necessity arise for calling out the reserve officers, of course expenses would arise on account of passage money and the difference between £400 per annum and their Indian pay which should be a consolidated salary of not less than Rs. 1,000 per mensem, but as these charges would not be recurrent and only incurred in time of war when money has to be spent freely, they need not enter into these calculations.

(c) How would the reserve officers be employed when called out for service.

This would be a matter to be determined later if the scheme were feasible, but there would be plenty of work for 100 officers of the ages of 40 to 45 years with Indian experience, if India was involved in a big war. For instance, they could be employed as commandant of depôts, of small stations, as recruiting officers, or on lines of communications, as temporary staff officers in district commands, etc., etc., thus releasing younger officers for more active duties in the field.

(d) What are the advantages of the scheme?

We have an increase of 100 combatant officers whether they are 100 reserve officers of Indian experience or 100 sub-altern officers entertained in the place of these reserve officers.

(e) In other words an extra 100 officers are trained for service with native troops at a very small expense.

We also obtain a more constant flow of regimental promotion, and consequently the removal of that block that appears inevitable in the near future.

The second proposal is one by which another hundred officers at least might be trained for service with native troops at a very small cost; many of whom would be available when war broke out, and is based on the idea that as the British Service now trains officers in the first instance for the Staff Corps, so it might assist this branch in time of war.

We suggest that a course of instruction be opened to subaltern officers of the British Service serving in India to enable them to qualify for employment on service with native troops.

Such a course should last for two months, during which period the candidates, who must first have passed an examination in Hindustani, or whatever language might be most requisite, would be attached to native regiments, would attend all parades, durbars, etc., etc., and whose special object it would be to become acquainted with the native officers, non-commissioned officers and men, to learn their customs and to study the interior economy and requirements as regards food, clothing, and caste prejudices of the class with which they had to deal.

At the conclusion of the course, they would be examined orally by the commanding, and next senior, officer, and if considered by them to have gained a fair knowledge of the working of the regiment, and especially to possess that tact and manner that is so necessary if the confidence and esteem of native soldiers is to be won, would be granted a certificate of qualification.

If possible, these officers should visit the several regiments to which they had been attached for a week or ten days annually to enable them to keep in touch with all ranks.

The object of this proposal is that when a native regiment was ordered on service, it might be supplemented as regards British officers from amongst those who had been attached and who would consequently know the men and be looked upon by them as belonging to the regiment.

The questions that at once arise are—

- (a) Are the officers forthcoming?
- (b) What would the cost of the scheme be?
- (c) What advantages are there in the scheme?
- (d) What disadvantages are there in the scheme?
- (e) What status would the officers carry in the regiment to which they were attached on service?

To take these questions in detail :—

- (a) *Are the officers forthcoming?*

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We think there is no doubt whatever under this head. Active service is so eagerly sought after that many officers would gladly undergo the course for the sake of the extra chance it would give them of employment. For, of course, it would be understood that every opportunity would be taken of employing these officers on any expedition, however small, in which the regiment to which they had been attached might be engaged. A point might even be stretched in allowing an officer, in case the regiment to which he had been attached was not on service, to join another regiment of the same class which was, as although he would not know the men he would be in a position to quickly gain their confidence.

A difficulty would arise in the case of an officer's British regiment and the native regiment to which he had been attached, both being ordered on service, as he would naturally prefer to remain with the former. But first of all there is the chance that both corps would not be employed; and, secondly, even supposing they were, it would probably be only occasionally that this happened, while there would be many instances where it did not.

Moreover, the officers might sacrifice their personal feelings and give their services where they were most required, their places in their own corps being supplemented by cadets from Sandhurst. There would be a greater chance of distinction for them, owing to the small number of British officers with the native regiment; and, if personal motives are to be considered, they would know that the authorities would not allow them to be losers in assisting them where necessity arose.

Of course the election would be purely voluntary, and, this being clearly understood, there is little doubt that numbers of young officers would gladly undergo a course of training which would certainly increase considerably their chances of and on active service.

(b) What would the cost of the scheme be?

During their training and when employed on service, attached officers should draw the difference between their regimental pay of rank and Staff Corps pay and allowances as wing officers. They should travel on warrant on joining for, and returning from, the course, and it would be well to give them an allowance of five rupees a day, when so travelling, to prevent their being put to any extra expense.

They should be allowed carriage for one horse and an outfit allowance of one hundred rupees to cover all expenses, such as mess and book club subscriptions for the two months

and the cost of horse equipment, and slight additions to uniform.

When visiting the regiment annually they should again travel on warrant, but there would be no necessity for them to take a horse. It would, however, be well to grant them detention allowance of five rupees per diem for the week or ten days they spent on this duty. A little liberality in this respect would go a long way towards encouraging the scheme.

(c) What advantages are there in the scheme ?

The military authorities would have a large number of officers, many of whom would be available to serve with native regiments in time of war. Officers who would be fitted to at once fall in with the duties assigned to them and who would be recognised by all ranks as belonging to the regiment to which they were severally attached. As there need be no limit to the numbers who underwent training, and as it would be possible to recall from England even any who were serving there if they were otherwise available, there would always be a supply when needed. The cost of training is nominal.

The scheme would also tend to draw the two services together by creating a link or bond of union amongst officers, which would certainly meet with response from the native ranks.

(d) What disadvantages are there in the scheme ?

First, it may be said that there are so many classes of instruction already that there is no time for attendance at any more. The answer to this is that where there is a will there is a way, and if officers mean to avail themselves of every opportunity of advancement, they will find the necessary time.

Secondly, the question will arise as to how the officers, while employed on service with native troops, are to be replaced in their British regiment. To this we reply that one hundred cadets can at any time be drafted, if necessary, from Sandhurst, even more. These would take the places of those employed with native regiment ; and, although only partially trained, would be of real value for the reason mentioned before, *i.e.*, that the very fact of their being officers would enable them to lead British troops. At the end of operations, if they were in excess of establishment, they would be gradually absorbed.

(e) What status would the officers carry in the regiment to which they were attached on service ?

As regards this, there would be no difficulty. They would take precedence by army rank *after* squadron or wing commanders.

In case of casualties amongst officers holding these appointments, they would succeed to such vacancies only *after* all officers permanently belonging to the regiment concerned.

In conclusion, it may be added that the proposal, if suitable at all, is suitable for all three branches of the service—cavalry, artillery, and infantry. It is merely a proposal and based on the assumption that expense is a great factor in the case. Considering that there must of necessity be British regiments left to garrison India while there is war beyond the frontier; that consequently there would be numbers of officers chafing at the inactivity of garrison duties which could be carried out by cadets from Sandhurst; that these officers, if previously trained, would be invaluable in the field with native troops: considering all this, it seems a pity not to devise some scheme by which this waste of material may be avoided.

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HOHENLINDEN.*

BY LIEUTENANT-COLONEL LAMBERT BROWNE, 17TH BENGAL INFANTRY.

I propose in this paper to give a short account of the Battle of Hohenlinden, but I am sorry to say that it seems to be unfashionable among English students of military history, and I am surprised at this, for the battle is full of good lessons to the soldier. It is true that Colonel Hart in his little book "Reflections on the Art of War" quotes Napoleon and speaks of Hohenlinden as "a soldier's battle," but I think this is hardly fair, as I will try to show later on, and we know that Napoleon was jealous of Moreau and always tried to minimise his achievements. As I said before, Hohenlinden, as a subject for military study, is not fashionable, and I have met very few officers who know anything about it, and, only the other day, one of them confessed to me that he did not know when or where it was fought or who fought it. This, I confess, rather staggered me, for I thought that every English school-boy knew Campbell's ode commencing "On Linden when the sun was low," not that the battle commenced when the sun was low, as the poem would lead one to suppose, for it began at 9 o'clock on a winter's morning in a snowstorm.

When I proposed to write this paper, I was asked by several brother officers why I had chosen Hohenlinden, and one even went so far as to imply great presumption on my part in criticising it. Well, my answer to the first is, that from my boyhood I have always been interested in the battle; it fired my youthful imagination to think of 60,000 Frenchmen waiting in the plain on a cold dreary morning in Bavaria with the snow lying around them and 60,000 Austrians marching through the forest to meet them with a snowstorm beating in their

* I had hoped to read this paper before the United Service Institution at Simla and have thus had the pleasure of listening to the after-discussion, for, in reading the accounts of the proceedings at London, Simla, and especially Dublin in Lord Wolseley's time, I have noticed that the after-discussions have been often as valuable, or more so, than the lectures themselves.

faces,—I can imagine nothing finer. With regard to the second point, I may seem presumptuous in airing my opinions when men like Hamley Clery and Hart have only made small references to it, well ! I can only quote Alison. He says : “ The Art of War is a progressive one and a mediocrity of to-day may very well be able to criticise what it took a genius to create.”

Now, before getting on to the actual field of battle, I should like to state briefly the events which led up to it. Not 100 years ago, that is to say, in the year 1799, France was ruled by the Directory and was at war with England, Austria, and Russia. England, as usual, was paramount at sea, and Austria, supplied with British gold, was holding her own, both in Italy and Bavaria, and the French had been suffering from a series of reverses.

At this time General Buonaparte returned from his brilliant campaign in Egypt, and in November of that year got himself made First Consul and was, as a matter of fact, the one man in France.

Buonaparte at once made proposals of peace to the three powers and Russia acceded but England refused, and Austria, still relying on the British subsidies, did the same. On this Napoleon lost no time ; he made his wonderful march over the great St. Bernard on the 20th May 1800, fell on the Austrian line of communications, and defeated them at the Battle of Marengo on the 14th June. He granted an armistice to the Austrians and again offered them peace, but they could not come to terms, and, in the following November, hostilities again broke out.

At this time France had in Bavaria one of the finest Austrians and French in armies that the Republic had ever possessed ; it consisted of 110,000 veteran soldiers thoroughly equipped and commanded by General Moreau.

To meet this force the Austrians also had an army of 110,000 under the Archduke John, but of these 50,000 were guarding the flanks in Bohemia and the Tyrol, and the remaining 60,000 were on the line of the Inn.

I am now approaching the scene of the battle which I intend to describe. As I said just now, the Archduke John had 60,000 men on the “ Line of the Inn ” supposed to be one of the strongest strategic positions in the world. On the rough map

Line of the Inn.

attached I have endeavoured to shew what is meant by the "Line of the Inn." Looking at it carefully, you will see that on the right flank the Archduke had the mountains of Bohemia and the fortress of Braunau, and on the left the mountains of the Tyrol and the fortress of Kufstein, while both Bohemia and the Tyrol were garrisoned by Austrian troops, and had an armed population hostile to the French.

Moreau could not well advance into difficult countries like these, for, whichever he attempted to enter left the Archduke on his flank, and he could not advance direct on the Archduke because of the Inn. This river is deep and rapid and throws an immense volume of water into the Danube; it has steep rocky banks and can only be passed at certain points, and of course all these points were fortified.

As long as the Archduke held the Inn, he covered the Austrian capital, and if Moreau wished to advance on it, he would have to force the Inn at a disadvantage.

I think, therefore, that my readers will agree with me that the "Line of the Inn" was something like a position.

Now, as to Moreau's army. He himself was at Ebersberg on the high road from Munich to Wasserburg; his left under Grenier was at Hohenlinden, while his right stretched away to the Tyrol under General Lecourbe.

A glance at the second map will shew that it must have been a difficult country to manœuvre in, owing to the dense forest lying between the Iser and the Inn. The distance between these two rivers is about 36 miles and the forest of Hohenlinden lies between them, parallel to the courses of the two rivers. The forest itself is about 5 miles broad and about 18 miles long and was impassable for cavalry and artillery, except by the two great roads from Munich.

Of these two principal roads, one led from Munich through Ebersberg and crossed the Inn at Wasserburg, the other led from Munich through Hohenlinden, Haag, and Ampfing, and crossed the Inn at Mulhdorf.

These maps are only very rough ones, but nevertheless they give a general idea of the lie of the country, without which it is impossible to understand any battle.

Before I can come to the actual field of battle, I must first describe a few manœuvres which led up to it.

Now, I have just shewn what a difficult nut the "Line of the Inn" would be to crack, yet, when all chance of peace

failed, Napoleon sent a peremptory order to Moreau to "cross the Inn and advance on Vienna."

Moreau had command of the Iser, and if he attempted to cross the Upper Inn between Kufstein, Rosenhiem, and Wasserburg, he would have great local difficulties to contend with and have the army of the Tyrol on his right flank. If he attempted to pass it lower down, near the Danube between Braunau and Passau, he would have a long march through a difficult marshy country covered with forest and have Braunau on his right flank, through which place the Austrians could fall, with effect, on his right flank.

The Archduke John was a young man, anxious to distinguish himself, anxious to cut out one of Austria's best generals, the Archduke Charles, and anxious to emulate Buonaparte. Instead of remaining in his splendid defensive position, he determined to advance, seize Landshut on the Iser, threaten Moreau's retreat and make him retire. A good idea, but he was not the man to carry it out!

The Austrian commander.

Having made up his mind, the Archduke proceeded to act :—

He crossed the Inn on the 27th November and marched his army to Landshut, but the weather was bad and he did not arrive till the 29th.

At this time Moreau, having concentrated his left and centre, was at Haag and Wasserburg, and when the Archduke heard this he became anxious about his left flank and feared an attack on it, so on the 30th he broke up from Landshut and marched to Ampfing and Dorfen.

Strange to say, Moreau heard nothing of this new move of the Archduke's, and thought that the Austrians were concentrating behind the Inn at Mulhdorf and sent on strong reconnoitring parties towards that place. His right was at Rosenheim, his centre at Wasserburg, and his left at Haag, and, though he did not know it, he was gradually approaching the Austrian columns at Dorfen and Ampfing. The effect of this movement of Moreau's was to bring his left flank right on to the Austrian army, 60,000 strong. His army was on the line of march, his left, centre, and right were separated, and they were advancing towards Ampfing, and did not know even that the whole Austrian army was drawn up in battle array on their left flank. I will not detain my readers by describing at length what took place, but the result was that the French, taken by surprise, were attacked, in detail and defeated on the 1st

Defeat of the French on December 1st.

December. After a brilliant success like this, one would have thought that the Archduke would have followed it up, but, strange to say, he did nothing of the sort; he allowed the whole of the following day, the 2nd December, to elapse without making any forward movement. It was now that Moreau shewed what a general he was. Instead of taking advantage of the delay to retreat on Munich, and accepting his defeat as final, he withdrew his troops, in the most skilful manner, through the forest of Hohenlinden, and drew them up in what we call "the original alignment." His centre was to the left of Hohenlinden, his right at Kreut, and his left at Nearharling.

When it became evident to him that the Austrians meant to advance through the forest, he determined to stand his ground and attack them as they debouched from the forest, and in addition he sent two divisions under Richepanse and Decaen to a place called St. Christophe, with orders to push on to Matenpot on the morning of the 3rd and take the Austrians in rear.

Everything turned out as Moreau hoped. Early on the morning of the 3rd December the Austrian army entered the forest in three columns, or, according to Thiers, four columns.

The centre, 35,000 strong, entered it at Matenpot on the great road from Mulhdorf, the only road fit for artillery because of the

Austrian advance.

weather. There were over hundred guns and five hundred wagons. The infantry marched first, then the long train of artillery and wagons and last of all the cavalry. Their right wing, 23,000, advanced by an inferior road through Isen, while their left, 12,000, under General Riesch, entered the forest at a place called Berg with orders to march *via* St. Christophe.

The Austrians began their march two hours before daylight and thought that the French were in full retreat, and they were in great spirits. But, from the beginning, the luck seemed against them; during the night the wind changed, the rain had turned to snow, the different columns could not see 20 yards before them, the cross roads were almost impassable, the columns could not communicate one with the other, and each body was left to its own resources; the result was that the centre column, which advanced along the only good road, outstripped the others and got near to Hohenlinden about 9 o'clock in the morning. The head of their column was there attacked by a division of the French under Grouchy. The Austrians tried to debouch from the wood and extend, and the

The battle.

French tried to drive them back into the wood. The snow-fall was so heavy that the opposing forces could not see one another, but they aimed at the flashes of each other's muskets, and then rushed forward with the bayonet. The Austrians, however, were gaining ground and were gradually extending, when Moreau sent Grandjean with fresh troops, and a decisive charge drove them back into the wood. The ranks of the Austrians were broken by the trees, but they still kept up a murderous fire, and fought man to man with invincible bravery.

While this furious fight was going on in front of Hohenlinden, the Austrian right began to appear at the entrance of the forest at Neanharling and Buch. They were instantly attacked by General Ney with great fury, and driven back into the forest with the loss of eight guns and 1,000 prisoners.

Moreau's idea of keeping the enemy's columns in the forest soon began to tell on the Austrians. Their long columns, unable to advance and pressed on by the crowds in rear, soon began to fall into confusion and got jammed up among guns and wagons. They were in this state when the division of Richpanse arrived in their rear at Matenpot ; there

Flank attack by Richpanse.

he came across the Austrian left under Riesch who fell perpendicularly on his line of march and cut through his division, and thus he, Richpanse, found himself with only one brigade near Matenpot and the other at St. Christophe.

General Richpanse, however, was a good officer and a gallant soldier. He had received orders to do a certain thing with his division, but, as only a brigade of that division was left to him, he determined to carry out his orders with that brigade.

But, with regard to this celebrated march, I cannot do better than give Thiers' description of it:—

“ Richpanse and Dacæen, in obedience to the orders they had received, had struck off from the Ebersberg road into that of Hohenlinden. Richpanse, who was the nearest to Matenpot, had started without waiting for Dacæen, and daringly penetrated into that tract of thickets and ravines which separates the two roads, marching while the fight was going on at Hohenlinden, and making incredible efforts to drag with him over that inundated ground six pieces of small calibre.

“ He had already passed, without accident, the village of St. Christophe, when the corps of General Riesch, destined to flank the centre of the Austrians, arrived there; but he had proceeded onward from St. Christophe with a single brigade, leaving the second, Dronet's, engaged with the enemy.

"Richpanse, reckoning upon Dacaen to extricate Dronet's brigade, had marched, without losing a moment, for Matenpot, for his military instinct told him that there was the decisive point. Though he had left but two demi-brigades of infantry, a single regiment of cavalry and six pieces of cannon, about 6,000 men, he had continued his march.

"On reaching Matenpot, at the other extremity of the defile of the forest, the head of which we have just said, Ney was attacking, he fell in with a body of Austrian cuirassiers, dismounted; he attacked them and made them prisoners.

"At this moment Richpanse's position became critical, for, surrounded on all sides, he thought he ought not to give the Austrians time to perceive his weakness.

"Committing to General Walther, a demi-brigade and the cavalry, the duty of keeping in check the enemy's rear-guard, he himself, with one demi-brigade, fell to the left and took the bold resolution to fall upon the Austrian rear in the defile of the forest. He defeated two Hungarian battalions and came upon the Austrian baggage. Mixed up with artillery and infantry, he attacked them and threw them into frightful disorder.

"He advanced and met Ney who was marching from Hohenlinden."

But to return to my story :—

When Moreau, who was still continuing his fierce fight in front of Hohenlinden, heard Richpanse's guns at Matenpot and noticed the confusion and hesitation in the enemy's ranks, he knew the decisive moment had arrived.

Like Wellington at Waterloo, when he heard of the arrival of the Prussians, he ordered a general advance of the French, and Austrian defeat. general attack, and the Austrians gave way on all sides. They lost their baggage and 12,000 prisoners. This included nearly all their artillery and cavalry, for, strange to say, when Richpanse came on their rear, he found the former unlimbered and the latter dismounted, and, after a slight resistance, he captured the lot.

Moreau succeeded in driving the defeated army from the Inn to the Enns and from the Enns right up to Vienna. That city was at his mercy, but in February the peace of Luneville was concluded.

Such was the decisive battle of Hohenlinden. There is one point, I ought to mention, *viz.*, Moreau's real right was not in the battle at all; it was away on the Upper Inn under Lecourbe. Now what do we learn from this great fight, which Napoleon

Criticisms on the battle.

at St. Helena stigmatized as a soldier's battle? It was no doubt full of lessons, especially in the faults committed by both generals.

Napier says : " Military operations are so dependent upon accidental circumstances that, to justify censure, it should always be shewn that a general has violated the received maxims and established principles of war." Bearing this in mind, I do think that, had Moreau had an effective intelligence staff, he would not have been surprised on the 1st December. In the year 1800 cavalry were used only for charging, and such a thing as a cavalry screen was unknown. Generals relied for their information on the inhabitants and on spies, who were promptly hanged when caught.

No intelligence staff on either side.

These remarks apply also to the Austrian, for had his cavalry kept touch with the French after their defeat on the 1st, the Archduke would have known that they were not in full retreat on Munich, but had halted at Hohenlinden. It is hard to understand this extraordinary want of caution on the part of the Archduke, for he ought to have known that Moreau was never more dangerous than when making a retrograde movement, witness his brilliant retreat to the Rhine only three years before.

Of course the Archduke's great error was in not at once following up his success of the 1st December. It is a military axiom that " all victories are completed by pursuit, and, if possible, by forcing your enemy off his line of retreat."

Again, though what Colonel Hutchinson calls " The Fortune of War " was against him in the bad weather, bad roads and the snow and wind in his face, he does not seem to have made any attempt to make the best of things. His three

No lateral communications.

columns entered the forest of Hohenlinden at the same time, and naturally the one which had the good road arrived on the scene of action before the others. Again, all writers insist on the importance of lateral communications being kept up, either in a defending or attacking force. The Archduke did not make arrangements for this ; it would have been difficult, no doubt, in such a country, but he might have tried.

Yet another fault, had he used his cavalry to " secure his flanks," it is improbable that Richpanse would have been able to get round his left flank and attack him in rear. Clausewitz, who

No cavalry covering flanks.

looks upon Hohenlinden as one of the greatest of the defensive battles, says :—

“ Such cases, as that of an enemy uncovering his flanks and rear, certainly occur now very rarely, still it does happen, and most easily when the enemy indemnifies himself by offensive enterprises.”

To refer once more to Napoleon, he tries to take from Moreau the credit of Richpanse's march and says that Moreau gave no orders at all and that Richpanse acted on his own initiative. This is not a fact, for the written orders telling him to march on St. Christophe still exist. They were not, it is true, very precise, but Moreau knew the man to whom he gave them ; he had served under him for years, in his celebrated retreat, at Engen, Stockach, and Moeskirch, etc.,

Richpanse.

and had always proved himself a gallant, enterprising, trustworthy general. Nothing succeeds like success, and without wishing to detract from Richpanse, it was Moreau's forethought which thought of the movement, and Moreau's sound judgment of character which made him pick out a vigorous man, like Richpanse, to carry it out. The victory of Hohenlinden, following so soon on his brilliant spring campaign, covered Moreau with glory. He has at times been accused of dila-

Moreau.

toriness and irresolution, but, at the same time, here we have an unbroken series of successes, obtained by prudence and firmness. Thiers says : “ Moreau had proved himself capable of commanding 100,000 men with prudence and vigour ; no man, excepting Napoleon, has manœuvred such a force so well in the present century.”

The victor of Radstadt, Biberach, Engen, Moeskirch, and Hohenlinden could have been no ordinary general.

Before concluding I would like to follow Clery's plan and sum up the causes which led to this great Austrian reverse :—

- (1) Not getting reliable information about the enemy.
- (2) Want of dash and vigour in not at once following up the success of the 1st December.
- (3) Having no lateral communications.
- (4) Not protecting their flanks and rear.

The battle was most decisive in its results, for, following so closely on Marengo, it brought about the peace of Luneville and eventually that of Amiens, and thus gave Austria and England breathing time before they again began the great

Decisive results of the battle.

struggle which was to end only, for Napoleon, in Elba and St. Helena.

NOTE.

It may interest some to know the after-fate of the principal generals who fought at Hohenlinden.

Moreau was exiled to America for participation in the Chouan conspiracy, and afterwards killed at Dresden fighting against France.

Richpanse commanded a division in the expedition to San Domingo and died there of yellow fever.

Grouchy, according to Napoleon, lost him the Battle of Waterloo. Lived till 1847.

Ney was executed by the Bourbons as a traitor, December 1815.

AN ABSTRACT OF THE FIELD MEDICAL SYSTEMS, ETC., OF THE GERMAN, FRENCH, AND AUSTRIAN ARMIES.

BY CAPTAIN C. H. MELVILLE, A.M.S.

(Continued from April's Journal.)

CHAPTER V.

THE AUSTRIAN DIVISIONAL SANITARY UNIT.

56. *Composition.*—The divisional sanitary Unit of the Austrian Army is a composite organization, and consists of several sections whose relative size and composition may be seen in the accompanying tabular statement :—

| Name of section. | MEDICAL. | | SANITARY TROOPS. | | | TRAIN. | | | HORSES. | | WAGGONS. | |
|---------------------------------|-----------|-----------|----------------------------|------|-----------|----------------------------|------|-----|---------|----------|----------------------|----------|
| | Officers. | Official. | Non-commissioned officers. | Men. | Officers. | Non-commissioned officers. | Men. | | Riding. | Draught. | Ambulance transport. | Others. |
| 2 Aid Stations ... | ... | ... | 6 | 30 | ... | 2 | 16 | ... | 2 | 32 | 8 | ... |
| 1 Dressing Station ... | ... | 1 (f) | 6 | 32 | 1 | 2 | 18 | 2 | 3 | 30 | 3 | 7 (a) |
| 1 Ambulance ... | 3 | ... | 8 | 11 | 1 | 1 | 6 | 3 | 5 | 18 | ... | 6 (b) |
| 1 Field Column, Teutonic Order. | ... | ... | 1 | 12 | ... | 1 | 12 | 1 | 3 | 32 | 4 | 2 (c) |
| 1 Medical Reserve Store | ... | ... | ... | 1 | ... | ... | 4 | 2 | ... | 12 | ... | 4 (d) |
| Total ... | 3 | 1 | 21 | 86 | 2 | 6 | 56 | 8 | 13 | 114 | 15 | 19 |

Remarks—

All ambulance transport waggons are four-horsed.

(a) Two four-horsed, five two-horsed.

(b) Three four-horsed, three two-horsed.

(c) One four-horsed, one two-horsed.

(d) Two four-horsed, two two-horsed.

(e) Eight four-horsed, eleven two-horsed.

(f) Accountant.

57. *Nature*.—This unit may be taken as representing the bearer company and, to a certain extent, the field hospital of the French and German Armies: not only do its aid station, and dressing station sections supply the subordinate establishment for the posts that correspond to the regimental and main dressing stations of the other armies, but the ambulance section can accommodate sixty wounded in a comparatively permanent manner. The senior medical officer is in command of the unit and the senior military officer under him of the sanitary troops. The different sections of the unit remain distinct on the march and in action, though administratively united.

58. *Equipment*.—Each of the sections with the exception noted below has its own special equipment; without entering into details, this may be shortly referred to. The aid station sections have no proper equipment of their own; during an action the different corps unit, medical officers bring their dressing orderlies with them, and the drug and dressing havresacks carried by these are utilized. Any additional equipment that may be needed can be supplied from the dressing station section. The equipment of the dressing station section is carried in two field hospital store waggons of the 1882 model. It includes a remarkably small proportion of drugs—chloroform, carbolic acid, corrosive sublimate, etc.—but no opium or morphia; a good stock of dressing materials, four instrument cases, some kitchen utensils and medical comforts. The equipment of the ambulance section is carried in three waggons of the same class as the above. The stock of drugs is rather larger than in the dressing station section, but remarkably small when compared with the German bearer company equipment: a good stock of dressings, four instrument cases, bedding for sixty patients, kitchen utensils and comforts. The medical reserve store has a fairly large store of drugs, some dispensary apparatus, dressings, etc. The equipment of this section is carried in two waggons of the above type.

The field column equipment consists of instruments and utensils of various sorts and some comforts. A tent and operating table are carried by this section. Torches and lanterns are supplied liberally, *viz.*, 110 of the former and sixteen of the latter, in addition to red-cross lanterns. Torches of two kinds are used, *viz.*, magnesium and pitch torches.

Forty-four stretchers are carried by the entire unit; these with the lanterns and torches are distributed irregularly to the various sections.

59. *Duties on the march and in camp.*—The unit as a rule follows immediately behind the baggage train of the division, and in front of the divisional ammunition park; when a collision with the enemy is expected, one aid station section marches with, and at the rear of, the advanced guard, the remainder of the unit, immediately behind the main body of the division. The space taken by the entire unit when on the march is 730 paces. The different sections of the unit march in the relative order given in the above table; under ordinary circumstances the two aid stations march separately, each with its own waggons; the other sections also retain their own waggons with them. The different medical officers occupy such positions as are pointed out to them by the senior medical officer; these will be invariably with the various groups of ambulance transport waggons. On the march the unit is preceded at a distance of 100 yards by a patrol, whose duty it is to examine the sides of the road for men who may have fallen out; these when found are picked up by the aid station establishment, and, if ordered by the medical officer, placed in the ambulance transport waggons. Waggons should be stopped only for serious cases; others should get up while the vehicle is in motion. On arrival in camp all sick must be either returned to their corps, or transferred to some permanent hospital establishment.

The unit will as a rule form the assembly place (*Sammel-punkt*), to which the sick of various corps will be sent; the ambulance transport of the unit may be used for the purpose of bringing them from their corps, but for their further transport carriage should be requisitioned from the head-quarters section of the train.

60. *Duties during long halts.*—The ambulance section is established as a central hospital for the division (*Marodenhäus*); the local authorities providing the necessary equipment.

61. *Duties in action.*—The unit should, previous to an action, be completely provided by requisition, or otherwise, with all necessary materials, *vis.*, meat, restoratives, improvised stretchers, poles, planks, carpenters' tools, and transport. A small detachment (a non-commissioned officer and six men suggested by Hausenblas) are told off, with stretchers and splints to accompany cavalry. Directly the engagement begins four mounted orderlies should be despatched to the divisional principal medical officer to keep up connection with him and also between the various stations; these orderlies will as a

rule be selected from among the head-quarter staff escort, and should understand the German language, but in the first case men of the train may be used for the purpose.

62. *Aid stations, position, and selection.*—These are formed by the two aid station sections of the unit, in positions selected by the general officer commanding or principal medical officer of the division; in emergency the senior medical officer of the unit or of a section may post it, reporting the fact and the locality at once to the principal medical officer. The regimental establishment of aid stations is taken entirely from regimental establishments; the principal medical officer using his discretion in detailing medical officers for these duties, and in doing so taking into account the special qualifications of any particular officers. This has already been referred to in discussing corps units. An aid station should be placed, according to the regulations, at about 1,000 or 1,200 paces behind the fighting line, but Cron points out in his *Taschenbuch* that this distance is under-estimated; the two factors to be taken into consideration are—

- (1) that the distance must not be too great for the stretcher bearers to traverse in a comparatively short time;
- (2) that it must not be too short for safety.

Cron suggests 1,600 to 4,000 paces from the enemy, according to the nature of the ground. The leading aid station section will naturally post itself more or less immediately behind the place where the troops of the advanced guard come into action, the second station should therefore be so posted as to divide the field of battle with the first. An aid station should be close to, but not immediately upon, the line of retreat of the brigade, or wing of the division which it covers, and should have a good road leading to the dressing station. It should be sheltered from direct fire by an undulation of the ground, buildings, high banks of earth, etc., but should not be near slightly built walls, the fragments of which would be dangerous under artillery fire. Water, straw, etc., should be available if possible; the ground should be soft, and there should be a convenient space handy whereon to park the waggons. The place being selected the aid station section marches on it, the road being cleared by a mounted orderly; in case of speed being necessary the dismounted personnel should be placed in waggons. The signal flags are erected on a conspicuous spot close at hand; straw for wounded to lie upon, and water, must be collected. Water carts being requisitioned for this purpose where necessary.

63. *Work at the aid stations.*—Surgical work at these stations should be limited to covering open wounds with a simple dressing, re-adjusting dressings badly applied by stretcher bearers, such emergent operations as ligature of large vessels or tracheotomy, and temporary putting up of fractures. Perforating wounds of cavities should be covered up. The senior medical officer superintends the general working of the station, and should tell off one medical officer to supervise the giving out of equipment, and to see that all havresacks are not opened at once; another to look after those cases that have been attended to and are awaiting further transport to the rear. A man should be specially told off to see that all fire-arms brought in are unloaded.

64. *Transport of wounded to dressing station.*—All cases should be removed as soon as possible to the dressing station (exceptionally to other units), the mode of transport to be settled by a medical officer, *viz.*, either—

- (1) On foot, in parties.
- (2) In ambulance transport waggons (these for the most serious cases).
- (3) In specially fitted-up wheeled transport; ration-carts (of which twenty-four are available in each division, but only as far as the dressing station), train waggons, and requisitioned carts. These carts only carry two men lying down in each. Major Hausenblas in his concrete imaginary case allows twelve ration-carts to each aid station, and reinforces them later by twelve requisitioned carts; he calculates on each ration-cart carrying four wounded. Single waggons or groups of them (more probably the latter) will be accompanied by a sanitary soldier with restoratives.

65. *Aid stations conform to movements of troops.*—If the division move to the front, the aid station should be pushed forward, or an auxiliary aid station made in advance; this latter will probably be always the case, as it must as a rule be impossible to completely empty a station all at once. In Major Hausenblas' case half the establishment is pushed forward, the remainder staying behind to wind up the work of the station. In making this move ambulance transport or other carts should be used to carry the unmounted members of the establishment. It is directed that whenever an aid station shifts its position, to the front or to a flank, a man should be left behind to indicate the direction in which it has

gone, or if this be impossible, a signpost of some kind should be erected with the same object.

In case of retreat the senior medical officer must make the necessary arrangements for evacuation, leaving behind him such wounded and establishment as he may think fit; signal flags should always be left flying. When all wounded have been attended to and evacuated, the station will be closed by order of the principal medical officer.

66. *Dressing station.*—This station corresponds exactly to the main dressing station of the French and German Armies. As a rule only one should be established for each division, the formation of subsidiary stations leading to dispersion of establishment and equipment and consequent waste of energy.

67. *Position of dressing station.*—If this has not been previously laid down in battle-orders (*Gefechts-disposition*), it may be fixed upon by the principal medical officer of the division, who will report his having done so to the general officer commanding. The distance from the fighting line should be 3,000 to 5,000 paces, or further if necessary, and should always be at such a distance as to be unaffected by the oscillations of the contending troops. Sufficient water of good quality, straw, and wood should be available, and it will be of advantage if there be sufficient accommodation for the various "groups" of the dressing station, in barns, houses, churches, etc., with a convenient open space adjacent for the waggons, ambulance transport, etc.

68. *Rules for establishing dressing stations.*—The position having been fixed upon, all necessary material must be collected: wood, water, bedding, utensils of all sorts, comforts, etc. Lighting material should always be obtained, as the work of the station may have to go on after dark; and carriage of all sorts should be requisitioned. Instead of merely straw for the wounded to lie upon, it is very advisable to put together some sort of improvised stretcher bed, on which the wounded can lie after being attended to, and be carried to the waggons. If the station has to be established in the open, the two dressing tents of the unit should be pitched, and further, shelter tents and improvised huts should be run up with any material which may come to hand. Cron very sensibly points out that the great thing is to have some system in carrying out these multifarious preparations, and that is best managed by allowing petty details to be settled by circumstances. He advises that the commandant of the sanitary troops be entrusted with the not purely professional work.

69. *Division of dressing station into groups.*—This station is divided into four groups, *vis.*—

- (1) The receiving room.
- (2) The group for slight cases.
- (3) The group for severe cases.
- (4) The group for moribund cases.

The following localities also should be set apart :—

- (a) General office (*Manipulations—Local*), where all equipment not actually in use can be systematically arranged, medicines dispensed, and clerical work done; this should be roomy and if possible sheltered from rain.
- (b) Kitchen.
- (c) Dining place; to be separate from the kitchen and placed under the supervision of a smart non-commissioned officer and some energetic soldiers, and the strictest discipline to be maintained.
- (d) Latrine for slight cases and for establishment about 50 yards off.
- (e) Waggon park close to dressing station, waggons to be parked with their poles pointing to the rear; under the sergeant-major of the train.

70. *Work at dressing station.*—In the receiving group, which should also be placed, so that all new arrivals must pass through it (men being posted some little way out to direct waggons), and should have easy communication with all other groups, the wounded are sorted and sent, on field stretchers if necessary, to such of the other groups as seem suitable; cases already sufficiently attended to at the aid stations being sent off at once to the waggon park. At this group, one experienced medical officer, the accountant, and a non-commissioned officer of the sanitary troops should be posted and a few men. Some tables, chairs, writing materials, and washing apparatus should be provided (Hausenblas gives two medical officers).

To the second group, all slight cases, *vis.*, such as merely need the application of a simple antiseptic dressing, should be sent. Prolonged examination and careful cleansing of the parts near wound may be postponed, and simple splints be applied where necessary. Several medical officers will be needed (Hausenblas, three), but special surgical ability is rather thrown away; one soldier of the sanitary section and an instrument orderly. Ordinary dressing materials and instruments for minor surgery must be supplied.

To group (3) all severe cases must be sent, including wounds of upper air-passages and the vicinity, perforating wounds of the larger cavities, severe hæmorrhages, comminuted gunshot fractures, requiring immediate amputation or resection, and wounds that need careful cleansing. A clean and airy operation room should be provided or a tent pitched, and a table if possible procured. Operations should not be performed on field stretchers if avoidable. Several experienced surgeons (Hausenblas, five), one non-commissioned officer and several soldiers should be detailed for this group.

Chloroform, morphia, cocaine, ether, alcohol should be provided ; also all necessary operating instruments and accessories. Some means for heating water and cooking, *e.g.*, a brazier and clean linen should also be allowed.

To group (4) all hopeless cases should be sent, *e.g.*, severe hæmorrhage from the lungs, injuries to spinal cord, extensive loss of brain-substance, etc. It should be well away from other groups, and near the mortuary. One medical officer and a sick orderly should be detailed : and sedatives, stimulants, apparatus for checking hæmorrhage, and restoratives be supplied. The commandant must superintend the entire working of the station, and cannot often attend entirely to purely professional work. In each group the senior medical officer present superintends the work of the group, and keeps a record of all cases attended to for future reference. As regards the class of work done, it may be stated that the same rules guide the work of this dressing station as that of the main dressing station of other services ; only emergent operations should be performed, and the general aim should be to fit patients for further transport.

71. *Dressing station during movements of troops.*—The dressing station should not be moved unless absolutely necessary ; if it must be moved the same system will be followed as in shifting the position of an aid station.

72. *Ambulance section.*—This section of the unit may be established by itself, or together with the dressing station section. In the former case it is used as an evacuation station for the dressing station, and its work consists in feeding and refreshing passing convoys, and taking over cases that cannot bear further transport. It has equipment for 200 men in the former, for 60 men in the latter case. It will be posted in some place where the supplies are good, houses, railway stations or public buildings being used. The general arrangements should be on the same lines as those for a dressing

station ; a receiving room, a rest room for men passing through, and a ward for cases that cannot proceed further, or that demand operation, being fitted up. A general office, kitchen, one or two dining rooms, and a waggon-park will also be needed. The work is also on the same lines as that of a dressing station.

In case of an advance, should the ambulance not be relieved by any other unit, sufficient establishment and equipment should be left behind wherewith to hand over the patients to the local authorities, and the ambulance itself should advance. In case of retreat the ambulance falls back, leaving the wounded with their kits and accoutrements. When, however, the ambulance is established in the same place as the dressing station, it stands fast in case of retreat. When the ambulance is established together with the dressing station the two work as one unit, the ambulance forming the fourth group of the dressing station.

73. Rules regulating relations of dressing station and ambulance sections—The conditions which decide whether these two sections of the unit should be established separately or together are as follows: they will remain together when—

(a) the field hospital is so close behind that it is possible to evacuate the wounded direct from the dressing station to it ;

(b) when owing to the possibility of rapid and easy communication by river or rail, it is possible to evacuate from the dressing station direct to comparatively distant units.

On the other hand, they will remain separate when owing to the distance between the dressing station and the field hospital, or the imperfection of the means of communication, it is impossible to evacuate directly to the field hospital from the dressing station. In such a case the ambulance practically forms a staging hospital between these two units, with resources in the way of accommodating such cases as are unable to proceed any further. When the two sections are established together, the ambulance is utilized to facilitate the handing over of patients from the dressing station to a relieving field hospital, by remaining behind when the dressing station section advances with the advancing division.

74. Evacuation of wounded from dressing station and ambulance.—(a) All cases that are able to march are collected into parties under the senior man present, and sent off on foot, with a few requisitioned carts to carry their kits and any

men who may be able to keep up. They are directed to proceed to the nearest despatching station (*Abschubs-Station*). The man in command has a transfer roll (*Beschetnigung*) showing the number and class of carts used, the number and class of wounded carried. This is signed and returned from the despatching station with the empty carriage.

(b) Cases that need wheeled transport. In these, ambulance transport waggons, commissariat waggons, and requisitioned carriage may be used. The leading cart of the convoy should have a small flag flying. A certain amount of equipment and restoratives should be sent with the party. Not more than 100 men should go in each party, under a non-commissioned officer, with one soldier from the sanitary troops to every thirty men. A transfer roll as in the last case is sent with the party. Troops and trains should clear the road for the convoy. At the end of a journey all transport should unless ordered to the contrary return to its proper unit. Evacuation by river or rail will be discussed when the general system of evacuation is considered.

75. *Field column*.—This is rather a peculiar section; it consists of twenty-six non-commissioned officers and men, furnished, as well as twenty-five horses, by the army, but fitted out, and supplied with all necessary equipment by the Teutonic Order. The men of this section are used for work at the dressing station, and for escorts to the rear of that station.

76. *Sanitary material reserve*.—The sanitary material reserve is established in the Manipulations-Local of the dressing unit, and held in readiness to replenish expenditure in drugs and material generally.

CHAPTER VI.

THE FIELD HOSPITAL OF THE AUSTRIAN ARMY.

77. *Character and distribution*.—The field hospital of the Austrian Army differs in so many ways from those of the French and German Armies that it demands special consideration. The total number mobilized is forty for the entire service; they are numbered serially without any reference to the special army, to which they may for the time belong. They do not, properly speaking, belong to the medical services with the field army, but to those in rear of the field army. They are not placed directly under the orders of a general officer commanding an army corps, but under those of the general

officer commanding the lines of communication of an army (*Armee-General-Kommando*). The number of field hospitals told off to any army corresponds to the number of infantry divisions in that army; they are allotted to different *army* corps by the general officer commanding the lines of communication, and the various sections are employed with the different divisions as circumstances may indicate. A section of a field hospital may be attached definitely to a division, and will then come directly under the orders of the general officer commanding and principal medical officer of that division. Every field hospital is equipped for 600 beds, and includes a field dispensary; both are divisible into three practically equal and independent sections. The composition of a field hospital is shown in the following table:—

78. *Composition.*

| | Medical officers. | Medical officials. | SANITARY TROOPS. | | | Chaplain. | Civilian drivers. | Artificers. | HORSES. | | WAGGONS. | |
|-----------------------|-------------------|--------------------|------------------|---------------------------|------|-----------|-------------------|-------------|---------|----------|-----------------------|-----------|
| | | | Officers. | Noncommissioned officers. | Men. | | | | Riding. | Draught. | An bulance transport. | Others. |
| Field hospital ... | 10 | 7 | 3 | 60 | 111 | 1 | 82 | 3 | 3 | 162 | ... | 54 (a) |
| Sick transport column | ... | ... | 1 | 12 | 14 | ... | 18 | ... | 1 | 36 | 15 (b) | 1 |
| Total ... | 10 | 7 | 4 | 72 | 125 | 1 | 100 | 3 | 3 | 198 | 15 | 55 |

Remarks :—

(a) Five of these for establishment.

(b) One of these specially reserved for infectious cases.

The only mounted men are the commandant of the sanitary troops (a captain) and the civilian conductor; the junior officers of the sanitary troops march on foot, the medical officers, medical officials, and the chaplain ride in the waggons for establishment (*Personenwagen*). The special artificers include an armourer whose duty it is to repair the weapons of patients, and two smiths for general repairs to waggons and farriery. When the field hospital is broken up into sections, the chaplain, the senior apothecary (*Medicamenten-Official*), the armourer, and the smiths remain with the commandant of the hospital, that is, the senior medical officer. The sanitary troops of the sick transport column are drawn from the Landwehr, the waggons and equipment are supplied by the Red Cross Society.

79. *Equipment.*—Each section has its own equipment which is the same for all sections; there are, however, a few articles allowed specially for the head-quarter section, but their significance is slight. To each section is added a section of a field dispensary, containing a very full supply of drugs and dispensing equipment. The equipment of the sick transport column includes a double-fly tent, torches, an operating table, and a chest of tools. The equipment of one section of a field hospital takes up seven waggons, and that of one section of field dispensary one waggon.

80. *Composition and duties during advance.*—The different sections of a field hospital are as a rule disposed along the line of march at equal distances (*staffelformig*), during the period of advance of the army; they will not if it can be avoided be established during this period, the less mobile formations should first be utilised. The leading section will as a rule follow the troops at a distance equivalent to one forced march, say 18 or 19 miles; and when it has to be established with a view to taking in cases, the next behind will be moved up into its place. When an engagement is anticipated, as has been already stated, field hospitals may be told off to the different corps and a section allotted to each division; these will be pushed as far to the front as practicable. (In Major Hausenblas' paper one section of the field hospital marches 15 miles on the day of the action, arriving at the dressing station in time to relieve that section of the divisional unit about dark. It is, however, held in reserve during the greater part of the day, about 10 miles from the field of battle, till the result of the action is certain. In this case also the entire sick transport column marches with the leading section. It does not appear quite clear from the regulations whether the three sections of field hospitals told off to the three divisions of an army corps are intended all to belong to one hospital or to three different hospitals. If the three divisions march on separate roads, the latter would appear to be the best system.) Arrangements must be made, so that the unestablished sections, and all parts of established sections not absolutely necessary to efficient working, may be saved in case of retreat. As soon as a field hospital is established it becomes stationary, and again passes into the zone of communications, and comes under the orders of the *Armee-General-Kommando*. (This may be noted as an essential difference between the French and German field hospitals on the one hand, and those of Austria on

the other: the former belong essentially to the field army, and only exceptionally and temporarily form part of the medical services in rear: the latter belong essentially to the medical services in rear, and are only lent to the field army temporarily.)

During truces sections of the field hospitals will be so distributed as to be conveniently situated for the reception of sick from the divisional sanitary units:

81. *Arrangements in case of retreat.*—In case of retreat, field hospitals will if possible fall back, handing over all cases that cannot be moved to the local authorities; or the sick may be left in charge of an establishment, and with an equipment reduced to the minimum necessary, and the remainder of the hospital, including the weapons of the sick, sent further to the rear. Field hospitals are relieved by reserve hospitals told off for the purpose.

82. *Selection of locality for field hospital.*—This should be as close to the field of battle as possible, so that there may be no delay in bringing the wounded under shelter. (In Major Hausenblas' paper, a section of the field hospital relieves the combined dressing station and "*Ambulanz*" on the evening of the engagement.) Apart from this the locality should be selected with a view to prolonged occupation. Sanitation, good and sufficient water (32 to 33 gallons per head per day), the possibility of expanding the hospital, free communications, etc., must all be aimed at. Tents, huts, barns, railway stations, etc., may be utilized.

83. *Opening of field hospital.*—At first it will often happen that a field hospital will have to be opened under unfavourable circumstances. On such an occasion the best will have to be made of the situation. The sick should be told off in groups to the different houses, severe wounds, slight wounds, medical cases, and infectious diseases being kept separate. The rooms should be fitted up with beds, requisitioned or improvised, and if these be not available, palliasses, hay, moss, etc., may be strewn on the floors. Every room should have a cross, the name of the unit of which it forms a part, the use to which it is put, and the accommodation available marked on the door, above which a light should be placed. The wounded must on no account be overcrowded, and on the other hand over-dissemination must be avoided as it hampers work. An operation room, the brightest room that can be found, should be fitted up, well cleaned, and disinfected by fumigation if possible. Distinguishing flags should be placed on the most

conspicuous points. A kitchen, a receiving room, an office, a dispensary, and a store room must also be fixed upon. As time passes and things settle down the arrangements may be made more elaborate. As soon as the hospital is in a condition to receive patients, a telegraphic report should be despatched to that effect to the principal medical officer. Slight cases it may be noted need not at once be brought under a roof; rough shelter is sufficient if they are well looked after in other respects and well fed.

84. *General work of field hospital.*—This should be carried on as nearly as possible as in peace time, but circumstances must guide details of management. The senior medical officer as commandant is responsible for the entire direction of the hospital, and must be careful not to devote himself entirely to medical work; the junior medical officers on the other hand are limited to purely professional duties, with the exception of the second senior who should keep himself in touch with the general run of the administrative work, in case he may have to officiate in command. The commandant of the sanitary troops is responsible for the discipline of the establishment. The commandant of the sick transport column is under the orders of the commandant of the field hospital. The civilian drivers come under the orders of the commandant of the sanitary section. The kitchen should always have an eight days' supply of imperishable stores, and a sufficiency of ordinary stores, milk, bread, etc. Medical comforts especially should always be well in hand.

Admission of patients.—All patients on arrival should be classed according to the statements on their diagnostic tickets, and examined to see if their clothes, persons, and accoutrements are clean and free from vermin; their names are entered in an admission and discharge book (*Aufnahms-Buch*), and if wounded in a register of wounded (*Verwundeten-Buch*) in addition; they are then told off to the different wards.

Patients are recognised as being admitted in three different manners, *viz.*—

- (1) direct from corps:
- (2) as transfers from other medical units; and
- (3) irregularly from the field of battle, without documents.

A different procedure is carried out in each case as regards rationing and pay documents, which does not concern us here.

The usual proportion of attendants will be one to every ten patients, and one overseer to every five attendants.

85. *Expansion and evacuation of field hospitals.*—Every field hospital should be kept in such a state, by timely transfer of patients, as to be ready for a fresh flow of sick or wounded, or to resume the march; the former will especially be the case after serious engagements. The principal medical officer of the army corps is responsible that none of the field hospitals under him get crowded. With a view to keeping the field hospitals as open as possible, sick or wounded passing through will not be taken in, but accommodated in a special rest station (*Kranken-haltstation*). Should a sudden influx of patients occur, the hospital must be expanded by taking up additional space; barns and sheds of all sorts may be used. It should be remembered, however, that any such expansion, if allowed to persist for more than a few days, implies a practical abolition of the hospital as a mobile unit. Additional establishment and equipment must on these occasions be obtained on requisition through the general officer commanding the lines of communications, or from local resources. When a field hospital is relieved, all cases must be handed over to the relieving hospital, and all equipment in actual use with patients exchanged. Two days' provisions should be left with patients, and all stores (wines, comforts, etc.) given over to the relieving hospital, a receipt being taken. A field hospital will as a rule be relieved by a reserve hospital, and not by another field hospital.

86. *Discharge of patients.*—1. By return to duty. 2. By transfer to another hospital. 3. By death. 4. Otherwise, by desertion or capture.

In the first two cases the procedure is the same as in peace time. In case of death, a death report is sent, with the personal documents of the deceased to his depôt, or in the case of unattached individuals to the Ministry of War. Desertion or capture is reported to the military authorities. The procedure varies in the above cases in respect of the pay and ration certificates, according to the different methods of discharge, but these points are beyond my present scope.

87. *Professional work in a field hospital.*—The field hospital is the most advanced unit in which systematic treatment of all kinds can be carried out independently of other than purely professional considerations; antiseptic surgery and careful observation of cases can now be the rule. Cron recommends that when circumstances permit, one of the first things done should be to fit up a room for Laparotomy operations. If those are likely to be successful, they must naturally be performed as soon as possible.

88. *Movements of troops.*—When the army advances, field hospitals should if possible follow ; it is with this object that they should always be kept in readiness for a sudden move. Their patients will in this case be handed over to a reserve hospital. In case of retreat, the patients must be left behind, a minimum establishment and equipment remaining with them, under the protection of the Geneva Convention. The arms of patients must never be left behind.

CHAPTER VII.

SPECIAL ARRANGEMENTS FOR CAVALRY.

89. *General Remarks.*—In the German Army no special arrangements are made with a view to supplying assistance to the cavalry, when acting apart from other troops, it being considered that the regimental establishments should be sufficient to meet the requirements of the few wounded that may be expected to occur during the independent action of this arm (Von Schellendorf). In the French and Austrian Services, however, we meet with the *Ambulance de la Cavalerie* and the *Cavallerie-Divisions-Sanitäts-Anstalt*. A brief reference to these may be made.

90. *French.*—Cavalry bearer company of the French Army. The composition of this unit is as follows : two medical officers, one officier d'administration, one chaplain, sixteen non-commissioned officers and men (no stretcher bearers), one under-officer, and eighteen non-commissioned officers and men of the train, nine saddle and fourteen draught horses. The following waggons are allowed : two for medical and general equipment, three four-wheeled and three two-wheeled waggons for carriage of sick. One of these bearer companies is allowed for each brigade of cavalry and three for each division. In the latter case the three are combined to form a single unit, directly under the principal medical officer of the division. No definite rules are given for the employment of this unit ; nor indeed, considering the wide extent of the ground usually covered by the cavalry division, can it be expected that such would be of much use. The principal medical officer is allowed to use his own discretion working on the lines already laid down for the ordinary bearer company.

91. *Austrian.*—Divisional sanitary unit for cavalry of the Austrian Army. This unit consists of one medical officer, ten non-commissioned officers, and sixteen men of the sanitary troops, one non-commissioned officer and thirteen privates of the train, one civilian driver, two riding and twenty-four draught

horses, four ambulance transport, and three other waggons. The general lines of the work on the march and in cantonments are the same as in the case of the ordinary divisional sanitary unit. On the march it may be necessary to split the unit into detachments, accompanying the various portions of the division. In action, an aid station and a dressing station may be formed; the former for slight, the latter for serious cases. During a cavalry engagement, the sanitary unit should take up its position at first about 3,000 paces behind or to the flank of the division, when it forms for attack: the regimental medical establishments being about 1,500 paces from the third line of the division. Should the engagement result favourably, the unit should move up as close as possible to the scene of action; the dressing tent should be pitched, and the regimental medical establishment immediately concentrate there. The men of the sanitary troops should be sent out to collect wounded, and all details are the same as for the infantry divisional unit. Should an immediate advance not be necessary, the dressing station should remain *in situ* until emptied or relieved. As a rule hired transport should be used for purposes of evacuation. The following table shows the relative composition and strength of the Austrian and French.

92. *Comparison of above units.*—Establishments, exclusive of regimental medical establishments:

Special arrangements for cavalry.

| | MEDICAL. | | | TRAIN. | | | | | HORSES. | | WAGGONS. | |
|---|-----------|----------------------------|------|-----------|----------------------------|------|----------|-----|---------|----------|----------------------|----------|
| | Officers. | Non-commissioned officers. | Men. | Officers. | Non-commissioned officers. | Men. | | | Riding. | Draught. | Ambulance transport. | Others. |
| 1. French Bearer Companies. | 2 | ... | 16 | ... | 1 | 18 | 2 (c) | ... | 9 | 14 | 16 (a) | 2 |
| 2. Austrian Divisional Sanitary Unit for Cavalry. | 1 | 10 | 16 | ... | 1 | 13 | ... | 1 | 2 | 24 | 4 | 3 (b) |

(a) Three two-wheeled and three four-wheeled.

(b) One four-horsed and two two-horsed.

(c) One officer d'administration,
One chaplain.

CHAPTER VIII.

GENERAL REMARKS ON MEDICAL SERVICES WITH THE FIELD ARMY.

It may be of advantage to compare shortly the various armies in respect of the organisation adopted in each for the medical services with the field army. The following points may be chosen :—

93. *Distribution of medical establishment, in the three armies, compared.*—I. The distribution of the medical establishment during an engagement. This is shown in tables given in Appendix B, the first of which shows the arrangement of the establishment for an independent division, the second those for an independent army corps. Some explanation of these tables may be given. For purposes of comparison I have divided the battle field into three zones—

- (1) The zone of stretcher bearer transport extending from the front, back to and including the ambulance relay post of the French and German Services, and back to and including the aid stations of the Austrian Service.
- (2) The zone of transport by means of ambulance transport waggons, extending from the relay post to the main dressing stations, in the German and French, and from the aid station to the dressing station in the Austrian System. In either case including the main dressing or dressing station as the case may be.
- (3) The zone of requisitioned transport, back to and including the field hospitals.

I have assumed that the medical establishments of the cavalry and artillery are kept with their corps; that, in the German System, the regimental dressing stations have been absorbed in the main dressing station; and that, in the Austrian Service, the ambulance section of the divisional unit is established apart from the dressing station section. I have not reduced the establishments to any common ratio to strengths; it may be taken that the divisions of all three armies are practically equal, while the army corps of the Austrian Army is half as large again as those of the French and German Services, being composed of three, whereas the latter contain but two divisions. It is interesting to note that the Germans increase the number of medical officers in each zone as we pass from front to rear, whereas the French have the largest number in the first zone, and a very small number indeed in the second zone; the Austrians again concentrate theirs in the

first and second zones, with a preponderance in the latter, having a very small number in the third zone. The German System seems on the whole the more philosophical; they increase the number of medical officers *pari passu* with increasing possibilities in the way of treatment. The Austrian System has a similar advantage, because their dressing station is, as a rule, established further to the rear than the main dressing station of the Germans and French, and is therefore more favourably situated with regard to treatment. With regard to the first zone it may also be noted (this is not shown in the tables), that whereas the Germans send one-half their corps medical establishments and all their stretcher bearers to the front, the French keep all theirs in rear of the battalion reserves, the medical officers being practically concentrated at the regimental dressing station, while the Austrians send only the stretcher bearers to the front, the medical officers and their bandage orderlies remaining at the aid stations.

94. *Significance of above.*—These varying distributions are of particular interest when one speculates on the probabilities of future war. Many men of great experience (Von Bardeleben, Billroth, Archibald Forbes, etc.) hold that in the future it will be impossible during the actual progress of an engagement to do anything for the wounded, who must therefore lie unattended, till the close of the action, or till a passing lull in the firing allows of the medical establishments penetrating to where they have fallen. This I would venture to think is an extreme view to take. That some modification of the present system of regular removal to the rear must be made is not unlikely; the fact, however, that, owing to the clean cutting action of the modern bullet, many wounds, not otherwise serious, will be rapidly fatal from hæmorrhage, makes it most inadvisable to leave the wounded unattended for a moment longer than can be helped. Such attention can be given by well-trained orderlies, directed by a medical officer to whom they can refer in very serious cases even under very severe fire. Removal is another question. The limit of practicability of any system of removal is very easily fixed. It is attained when the process of removal of a single wounded man results inevitably in the loss of one of the stretcher detachment. When this point is reached, obviously the work of the detachment nullifies itself. Short of this, however, we come to a point where the risk will be so great that none but the very best men will face it. Baker Pasha lays down a loss of 30 per cent. as the limit of endurance

of good troops in the heat of fighting; 25 per cent. must therefore be looked upon as very good indeed for men unsustained by excitement. That this limit has already been reached will I think be agreed to: that is, that the regular removal of the wounded to the rear during the actual progress of fighting will not longer be possible. It remains to be seen whether a modified system of rapid concentration under shelter at the time, combined with removal to the rear during lulls in the storm, may not be practicable. It must be remembered that the extremely flat trajectory of the modern bullet tends to increase the efficacy as cover of comparatively slight inequalities of the ground.

95. *Size of stretcher detachments.*—II. The size of stretcher detachments.

In the German and French Armies we find four, in the Austrian only two men per stretcher. This accounts in part for the fact that the latter have half as many stretchers again per division as the former; it must be remembered, however, that the Austrians do not possess any bearer company, and have therefore to supplement the deficiency by increasing the number of stretchers in the corps units. In the army corps we find that the Austrians do not in this respect possess any great superiority in numbers as proportioned to strength, over the Germans. Of late years, in view of the great increase in casualties anticipated as being probable in future engagements, numerous suggestions have been made with a view to increasing the number of stretchers available during an engagement. Thus Baumann ("*Vom Gefechtsfeld im Feldlazareth*," *Deutsche Militärärztliche Zeitschrift*, 1889, p. 455) suggests the use of a light stretcher about 20 lbs. (the regulation German stretcher weighs 30 lbs.) with only two bearers; Pannwitz ("*Die erste Hilfe im Zukunftskriege*," *Jahrbucher für die deutsche Armee und Marine*, 1893, p. 184)—the reduction of the bearers to three per stretcher, the present pattern being maintained. Jacoby ("*Beitrag zur Reform unseres Verwundeten-Transport*," *Deutsche Militärärzt Zeitschr*, 1892, p. 499) the use of a lighter stretcher and three bearers. To these suggestions it may be opposed that the proof of the necessity of such an increase is yet to be furnished. Granted that it is necessary, lightening the stretcher, or decreasing the number of bearers, are neither of them at all satisfactory steps. A reduction of 10 lbs. in the weight of a 30lb. stretcher can hardly be achieved without seriously affecting its strength, while at the same time a reduction of 10 lbs. in the weight of a

loaded stretcher, which may be taken at 200 lbs., is not sufficient to be any material gain. With regard to the bearers, three men can never do the work of four; they must inevitably tire in three quarters of the time. Again for bad ground, or the negotiation of difficult obstacles (walls over 5 feet in height, or ditches more than 4 feet across), four men are almost essential.

96. *First field dressings*.—The use of these has been of late somewhat debated on the continent. Tiroch in the *Militärärzt* (1895) discusses the question who should apply the dressing, the medical officer or the stretcher bearer, and is strongly of the opinion that the former alone should be permitted to do so. The stretcher bearer should be warned to abstain from any interference with the wound, and should limit his activity to checking hæmorrhage by pressure away from the wound, and the application of splints in case of fracture. His position may be summarized in the statement "The surgeon dresses, the stretcher bearer carries." Bogdan, in the same journal, the same year, takes to a certain extent the opposite stand-point, and thinks that with care in the packing and application of the dressing, it may be applied with advantage by the stretcher bearer. He also discusses the relative advantages of aseptic and antiseptic first field dressings, deciding in favour of the latter.

Battle and Chavigny, in the "*Archives de Medecine et Pharmacie Militaires*," Volume 27 (1896), p. 253, give an interesting account of the changes occurring in a first field dressing after prolonged storage. The dressings examined had been through the entire Madagascar Campaign, and consequently exposed to considerable climatic changes. In these the corrosive sublimate, with which the gauze and pad of the dressing are impregnated, had diminished from 1 in 1,000 to 1 in 1,500 or 2,000: while it had become deposited in the waterproof lining.

97. *Equipment*.—With respect to equipment attention may be again drawn to the lavish supply given in the German Army to corps units, compared with the restricted allowance of the Austrian Service. It cannot be doubted that the advantage lies in the latter direction. The enormous supply of drugs in the medical store waggon of the German corps unit should suffice for a march in an unhealthy climate. That they should be necessary for campaigning in a healthy one is hard to believe. The resources of modern pharmacy should much facilitate the solution of the problem of equipment for advanced units.

98. *Recent publications*.—The following papers may be noted as being of interest, and comparatively recent publication :—

1. *Die Übungen im Kriegssanitätsdienst bei den Herbstmanövern*; by Dr. Neumann, *Stabsarzt. Jahrbuch. für die Deutsche Armee und Marine*, October 1893.

2. *Sanitäts-Hilfe in Zukunftskriege in der ersten Linie*; by Dr. Hermin Fischer, *Oberstabsarzt. Streffleurs Österreichische Militärische Zeitschrift*, May 1894.

3. *Der Sanitätsdienst bei einer Infanterie-Truppen-Division im Felde*; by Major in Generalstabscorps Alfred Hausenblas, *Streffleur's Zeitschrift*, November 1894.

(A most careful and lucid account of the work of the medical services of an Austrian division before and during an engagement. In reading it, it should be noted that the change by which the senior medical officer of a unit was made its commandant is of latter date.)

4. *Unsere Sanitäts Detachements und die Führung dieselbe im Felde*; by Lieutenant V. Kries, *Jahrbuch : für die Deutsche Armee und Marine*, April 1895.

5. "*Sanitätsformation auf dem Schlachtfelde*." The same journal, 1895, p. 140.

6. *Rathschläge für den ärztlichen Dienst auf dem Truppenverbandplatzen*; Port, *Deutsche Militärärztliche Zeitschrift*, 1895, p. 145.

CHAPTER IX.

SYSTEMS OF EVACUATION.

99. *Aim of system of evacuation*.—To prevent an accumulation of useless men, near or in the theatre of war, it is necessary that all sick and wounded, who are not likely to be soon again fit for duty, should, as soon as their condition permits, be sent back to the Home country. This evacuation is carried out by rail, road or water-ways, or by a combination of these three, and for its proper and systematic working, the constant co-operation of the medical, military, and traffic authorities is necessary. The system by which this is ensured is somewhat complicated, and must be detailed somewhat minutely, and first it will be necessary to mention and describe the composition of certain of the various units or formations by which the work of the system is carried on.

100. *Committees for transport of sick and wounded, German*.—In the German Army, the unit which demands

special notice in this connection is the committee for transport of sick and wounded (*Kranken-Transport Kommission*), or more shortly the sick transport committee. This committee's duty is to superintend generally the system of evacuation as far as its authority extends. One such committee is appointed for each section of the lines of communications (*Etappen Inspection*), and consists of (1) *Oberstabsarzt*, (2) *Stabsärzten*, and (3) *Assistenzärzten*, with a certain subordinate establishment. Each committee is divisible in three independent sections, consisting of two medical officers, two hospital assistants, two or three sick attendants, and two privates of the train. Extra establishment may be procured from the aid societies or from war hospitals for the purpose of providing escorts for trains, or for duty at entraining or rest stations. The regular subordinate establishment will not as a rule be so used, but may be made available for hospital work at any place where they may be posted. The headquarters of the committee will at first be the base of its section of the lines of communications, as the army advances, the committee, or a section thereof will be moved to a more forward position under the orders of the inspector-general of lines of communications and railways. Suitable places would be the main stations of the line, and the size of the railway station and the facilities at hand for dealing with large numbers of patients will influence the selection of any particular place. If wounded are after an engagement brought to any other station on the line, the committee, or a section thereof, should at once proceed to that spot, without waiting for orders, the movement being at once reported to the inspector of communications. Directly the committee has been posted, whether in one or more places, information as to its position must be at once forwarded to the military railway authorities, and to the principal medical officers of army corps, and the field hospital directors; the former will thus be enabled to make their traffic arrangements, and the latter to arrange for the disposal of their patients. As the line of communications lengthens out, one section should be posted at the rearward limit of its sphere of activity; this will be called the border section (*Grenzsektion*). The general idea pervading the regulations seems to be that sick transport committees will be posted as a rule on the lines of rail; the possibility, however, of a lengthened line of road communication, necessitating the pushing forward of a section beyond the line of rail, is not lost sight of. (It may be anticipated, however, that this would not

be necessary unless the distance of the field hospitals from the railway were two or three days' march, say about 40 miles, and a force larger than an army corps were concerned).

Wherever a committee or section thereof is posted, the road commandant will in addition to the usual road station hospital open a dressing and refreshment station (*Efrischungs und Verband Stelle*) as well as a waiting room (*Kranken-Sammel Stelle*). These rooms may be worked from the beginning by the aid societies. When patients have to wait overnight, bedding must be provided, and a proper rest station established (*Übernachtungs-stellung*). The senior medical officer of the committee or of the local section supervises the work of these rooms. The committee has no definite equipment of its own; such equipment as it needs for the fitting out of the various trains or other means of transport will be procured from the hospital reserve dépôt. A sufficient stock must be kept with every section of the committee, to meet all probable wants, and to leave a reserve in hand.

101. *Medical officers attached to line commandants, German.*—These officers are posted on the line of rail, on the Home side of the committee's sphere of activity; their duty is to continue the work of the committee, passing on and assisting in the subsequent distribution of the cases that come from the front.

102. *Evacuation hospitals, French.*—In the French Service the most important special unit is the evacuation hospital (*Hôpital d'Evacuation*).

An evacuation hospital possesses a fixed establishment of six medical officers, one *pharmacien*, two *officers d'administration*, and forty-two *infirmiers*. Equipment is provided on a definite scale, and includes two field hospital units, three units for improvised hospital trains, two sets of reserve drugs, four sets of reserve dressings, and one set of reserve equipment for corps units, equivalent to the *Fourgons du Service de Santé*, C and D of the third bearer company. In addition a moveable disinfecting apparatus for use with hospitals for infectious diseases is supplied.

This apparatus consists of a large boiler on a sort of motor-car; it is used for disinfection by means of high-pressure steam.

One of these hospitals is posted at the advanced terminus of every main line of communications, road, rail or river, and when established should include—

- (1) Awaiting or receiving room, where the patients can be collected, pending the making up of a train or convoy.

(2) Wards for the treatment of cases needing immediate attention.

(3) Isolation wards.

The rooms or buildings appropriated to the above uses should be numbered and marked as in the case of field hospitals. In case of prolonged occupation huts may be pitched. In the case of evacuation hospitals posted at railway termini, it is necessary that the hospital buildings should be close to the railway station, the site being selected by the railway and military authorities in concert. It is not intended that evacuation hospitals should be used for the prolonged treatment of cases; any patients requiring such should be transferred to some local hospital.

103. *Despatching stations, Austrian.*—In the Austrian Service certain stations called despatching stations (*Abschubs-Stationen*) are fixed on by the general officer commanding the lines of communications, to which all sick will first be directed. Field and reserve hospitals will be instructed as to the particular despatching station to which they should send their cases. At each such station, a reserve hospital, a field convalescent depôt, and a rest-house will be established, so that all cases passing through may be attended to, and such as are unfit to proceed, or whose further evacuation seems unnecessary, may be treated *in situ*. At each such station also a staging committee (*Etapen Kommission*) will be posted. This committee consists of two military staff officers and two railway officials; a medical officer is attached to regulate the forwarding of sick and wounded. The duties of this committee are practically the same as those of the sick transport committee of the German Service, and need not be further detailed.

104. *Comparison of above units.*—The three units just now described, *viz.*, the sick transport committee, the evacuation hospital, and the despatching station (including in that term the staging committee) may fairly be looked upon as homologous; their detailed description was necessary to the proper understanding of the system of which they form a part.

105. *The four divisions of the system of evacuation.*—The system itself may be divided conveniently into four parts—

- 1st, the selection of suitable cases for evacuation;
- 2nd, the routine by which the machinery of evacuation is set in motion;
- 3rd, the journey of the sick and wounded to the Home country; and

4th, their distribution to the various hospitals in the Home country.

In the Austrian Service, the whole system is divided into two parts—one including the first three of the above heads, the other the fourth head ; they are termed respectively the evacuation system proper (*Kranken Abschub*), and the system of distribution (*Kranken-Zerstreuung*). This division is recognised to a certain extent in the other services ; but in the Austrian, the system of distribution is more centralised, under the immediate control of the War Ministry ; in the French and German Services, this control, though it exists, is of a more general nature. In all services the first three heads are directly under the general officer commanding the lines of communications, and through him under the general officer commanding the army. In all services also, the system starts at the front in the field or other hospitals established there.

In describing the various systems, it will be assumed that railways are in use for the evacuation of sick ; the differences caused by the employment of road or water-ways are as a rule unimportant, and will be mentioned later when discussing those methods of evacuation in detail.

106. *Selection of cases suitable for evacuation.*

This in all cases rests with the medical officer in charge of the hospital at the front. The points to be considered by him, in making this selection, are stated in almost identical terms in the regulations of the various services to be—

- (1) the general condition and strength of the patient ;
- (2) the nature of his disease or injury ;
- (3) the distance of the receiving unit ;
- (4) the possibilities in the way of attendance, shelter, and refreshment *en route*.

The German and Austrian regulations further lay down that in the case of severe injuries, movement before reaction has set in, is comparatively harmless, whereas after this has begun movement is extremely dangerous. In addition, penetrating wounds of the head, abdomen, and thorax, gunshot fractures, of the thigh, and wound of the hip and knee joints should in any case be moved as little as possible. The following rules are common to all three services :— Infectious cases are to be specially arranged for, slight cases, which are likely to recover at an early date, should be evacuated to as short a distance as possible, and men of the enemy, whose wounds are so severe as to preclude their return to duty

before the end of the campaign, should in the enemy's country be handed over to the local authorities.

107. *Routine by which the machinery of evacuation is set in motion, German.*—

In the German Army, the medical officer in charge of the transferring hospital communicates with the principal medical officer of the army through the field hospital director, and obtains information as to the amount and nature of the transport available and the whereabouts of the sick transport committee. He then sends to that committee a telegraphic notice of the number of cases under his charge awaiting evacuation, classifying them as (a) severe cases of disease, (b) slight cases of disease, (c) severe injuries, (d) slight injuries; by severe cases being meant those that demand lying down accommodation, regular or improvised, by slight cases those that do not need such accommodation. Certain cases, *e.g.*, infectious diseases generally, and mental cases, should be specially mentioned. Acting on the information thus received from the various field and other hospitals in connection with it, the sick transport committee advises the railway authorities, through the principal medical officer, of its needs in the matter of transport, and the different trains, etc., are then placed at its disposal by them at the places indicated. The medical officer in charge of a despatching hospital will despatch his party of sick and wounded as soon as, but not before, he hears that this transport is in readiness, making his own arrangements for the carriage of the sick and wounded from his hospital to the post of the committee. For this carriage should be requisitioned through the local commandant: ambulance transport carts or other empty waggons belonging to the army may be obtained when available through the general officer commanding. A special transfer roll is sent with the party (*Namen-verzeichniss*). On arrival of the party at the place where the committee is posted, the patients will as soon as possible be handed over to the medical officer in charge of the train, and will be in the *interim* accommodated in the rest station attached to the committee. Cases that appear unfit to proceed will be accommodated in the road station hospital, or some other adjacent establishment. Before the train starts the committee must see that the medical officer in charge is thoroughly posted in all matters regarding the care, etc., of the sick on the journey; this is particularly necessary in the case of improvised hospital and ordinary trains. A fresh transfer document or way bill (*Begleitschein*) is made out for this part of the journey. On the departure

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of the train, the committee must despatch to the local line commandant a telegram stating the hour of departure, the strength of the party, and the nature and extent of the arrangements to be made *en route*. If the destination of the train lie within the sphere of authority of the committee, this notice will also be sent to the railway commandant at that place, who will pass it on to the medical officer in charge of the receiving hospital. Otherwise the line commandant will forward the notice in the same manner. When a train despatched by the head-quarters or a section of a committee passes *en route* another section on the head-quarters of the same committee, this telegram will be sent through them.

108. *Routine by which the machinery of evacuation is set in motion, French.*—In the French Service, the despatching hospital informs the local commandant and the principal medical officer daily of the number of men remaining in hospital ready for evacuation and of the class of train necessary for their conveyance; this information is given on the back of the daily state (*Situation Journalière des Malades*). Orders are subsequently issued by the general officer commanding the lines of communications as to the place to which each medical officer is to despatch his sick. This place will always be an evacuation hospital. The convoy is despatched under local arrangements, the patients being sorted in three classes—

- (1) Those needing accommodation in a permanent hospital train.
- (2) Those who need accommodation in an improvised hospital train.
- (3) Those who can travel in an ordinary train.

An evacuation warrant (*feuille d'évacuation*) is sent with them stating the order authorising the movement, the station or hospital of destination, and the medical establishment accompanying the party; space being also left for remarks on any changes occurring *en route*. This, together with the small books and *billets d'hôpital* of the party, is handed over to the *officier d'administration* proceeding with the party, and by him eventually to the *officier d'administration* of the receiving unit. It is lastly signed and returned as a receipt to the medical officer originally despatching the party. The convoy on arrival at the railway is taken over by the evacuation hospital whose duties in respect of its accommodation and transfer to the medical officer in charge of the train are identical with those of the sick transport committee. The medical officer in charge of the evacuation

hospital reports to the principal medical officer daily the number of patients awaiting evacuation, and that officer in connection with the director of communications and the railway committee arranges the details of traffic management accordingly. These three authorities just named correspond daily on all matters affecting the working of the evacuation system.

A fresh *feuille d'évacuation* is made out and handed over to the *officier d'administration* of the train. Telegraphic information is sent by the military station master to the authorities at all stations where the train is arranged to stop, of the strength of the party, the probable hour of its arrival, the number of rations (if any) wanted, and also the number of men who are able to take their meals in the refreshment room of the station. The station master of the station of destination is also informed of the number of cases that need to be carried lying down to the receiving hospital.

109. *Routine by which the machinery of evacuation is set in motion, Austrian.*—In the Austrian Service, medical officers in charge of hospitals report daily to the local commandant on the daily state (*Verwundetend und Kranken Tages Rapport*) the number of cases fit for evacuation classified as—

- (a) those that need lying down accommodation ;
- (b) those that can travel sitting up ; and
- (c) those that should not be evacuated to any considerable distances.

Prisoners of war, infectious diseases, and mental cases must be specially mentioned. These reports are forwarded to the general officer commanding the lines of communications, and from them the subsequent traffic arrangements are made in consultation with the railway authorities. Hospitals situated on the line of rail, but not at a despatching station, may communicate directly with the railway authorities, and hospitals at a distance from the railway may send off their cases under local arrangements to the despatching station, informing the general officer commanding if necessary by telegram of the fact. In using the telegraph the different letters (a), (b) and (c) may be used to denote the three classes of sick and wounded above-mentioned. On arrival at the despatching station the sick and wounded are accommodated in the reserve hospital, the convalescent dépôt, or the rest station as seems most advisable. The staging committee carries out the further duties of resorting the cases, and arranging with the local railway authorities for their further transport. The station commandant or the committee send a telegraphic notice down the line in the same manner as in the French Service.

110. *Evacuation by road. Variations due to.*—When evacuation has to be carried out to any great distance by road, the Germans and French employ, the first a sick transport committee, the latter an evacuation hospital to maintain the connection between the hospitals at the front and the lines of communications. The Austrians employ a simple staging system under the orders of the general officer commanding the lines of communications. All details of organisation, *e.g.*, the selection of cases, etc., are the same as when railways are used.

111. *Evacuation by water-ways. Variations due to.*—When water-ways have to be used the Germans and Austrians make the same arrangements as in the case of railways, a sick transport committee being appointed in the former and a staging committee in the latter. In the French Service a navigating committee (*commission de navigation*) is appointed to superintend the traffic on every water-way; this committee consists primarily of a military member, who is always a senior staff officer, and a technical member, who should be an engineer of experience in bridging and canal work. The committee is assisted by officers of special branches (artillery, engineer, medical, etc.), who advise it on all points in which their respective branches are more particularly concerned. The authority of the committee is complete and extends back into the Home territory, where it comes directly under the Ministry of War. In the zone of communications it comes under the general officer commanding the lines of communications. An evacuation hospital is posted at both termini of the water-way. It is not intended that water-ways should be used for the evacuation of sick and wounded except as a "second string" (*moyen de fortune*) and then only for short distances. The length of the journey is expected to be at the outside two days, and as a rule only a few hours. The Austrians have made perhaps more use of water ways for the evacuation of sick and wounded than any other nation. In the campaigns of 1878 and 1879 in Bosnia and Herzegovina, the line of the river Save was used to fill up the gap in the railway between Brod and Sissek, about 150 miles; the coasting traffic of the Adriatic was also largely used, convoys being sent to Porto Tolero at the mouth of the Narente Valley by rail, and thence coastwise as far as Trieste; (*vide Myrdacz: "Die thatigkeit der K. U. K. Schiffsambuiansen und Eisenbahnsanitäts-Züge im jahre, 1878-79*).

The journey of the sick and wounded to the Home country and their distribution on arrival need not here be considered;

to them, and assist in the further transport to the rear, if necessary and possible. A certain number of field hospitals will be posted in rear of the camps occupied by the general reserves. One or more evacuation hospitals may also be

and t... stwise as far as Trieste; (*vide* Myrdal
"Die... der K. U. K. Schiffsanstalten und Eisen-
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T... y of the sick and wounded to the Home country
and... ution on arrival need not here be considered;

the consideration of these points entails a discussion of the details of the various railway hospital trains, hospital ships, as well as the various aid societies of which use is largely made at these parts of the ambulance system.

CHAPTER X.

MEDICAL SERVICES DURING SIEGES.

112. *General.*—Special instructions are given for the conduct of the medical services during sieges; they may be divided into—

- (1) those applicable to an attacking; and
- (2) those applicable to a defending force.

113. *Attacking force, German and French.*—The Austrians do not recognise separate rules for the former. The Germans and French lay down that, on a body of troops being detailed to carry out a siege, a special principal medical officer should be appointed for the period of that operation.

He occupies with respect to the general officer commanding the besieging force the same position as that occupied by principal medical officers in general. In both services in addition, a "senior medical officer of the day" (*Arzt du jour*, *Médecin chef de tranchée*) will be appointed to locally superintend the medical services in the trenches; if these are widely extended, one such will be detailed for each "attack," or flank of the trenches. In the French Service, in addition, a special French medical officer is attached to every field officer in command of a zone of attack (*major de tranchée*) to permanently superintend the medical services in that zone. Corps unit medical officers carry out their duties as usual in action.

In the French Service the following rules are also given:—Before the period of active operations begins, the advanced troops from regimental dressing stations as usual, and also a regimental hospital or detention room (*Infirmierie régimentaire*) for the treatment of slight cases, out of sight of, and sheltered from the guns of the town. The dressing stations are formed in the vicinity of the camp of the division, army corps, or other body to which they belong, or are attached.

They carry out the daily removal of sick and wounded from the front, and assist in the further transport to the rear, if necessary and possible. A certain number of field hospitals will be posted in rear of the camps occupied by the general reserves. One or more evacuation hospitals may also be

placed on the main lines of evacuation from the beleaguered town.

During the progress of active operations, dressing bomb-proofs (*Abris de pansement*) will be made in the trenches at places indicated by the major du tranchée, and these will be worked by the regimental medical officers. Regimental medical establishments should always be kept up to full strength during this period; vacancies being filled up from medical units further to the rear.

114. *Defending force, German.*—In the case of the defence of a besieged town, the German regulations lay down that all the medical services will be placed under a fort principal medical officer who will be responsible for their entire superintendence. All hospitals within the fort will be termed fort hospitals (*Festungs lazarette*) whether they are of prior or new formation. From the date of their being first so designated, they open a new series of records (a matter of some administrative and statistical importance).

All cases under treatment in such hospitals, whose condition is not such as to give promise of an early return to duty, should be evacuated before the investment is complete, and any opportunities of doing so that may subsequently occur should also be taken advantage of.

It is the duty of the principal medical officer to see that a sufficient reserve of medical stores and equipment is in hand; and that a sufficient number of instructed stretcher bearers and hospital attendants are available. He will tell off the former into suitable parties, making use of those belonging to corps in the garrison, and of civilian aid when necessary and available. In the case of outlying works, a separate organisation of the medical services may be arranged for each, where the distance at which they lie from the main fort makes this necessary: the rules to be observed will be the same as those given above, and the fort principal medical officer is responsible for their being carried out. He must also arrange for fresh supplies of drugs, dressings, etc., being forwarded to outlying works, and for the periodical relief of the establishments. As long as the enemy's fire or other untoward circumstances, *e.g.*, the occurrence of infectious disease do not prevent it, all sick and wounded should be sent into the main fort, wheeled stretchers or waggons being used.

115. *Defending force, French.*—In the French Service a principal medical officer is appointed to superintend the medical services in a fort or fortified town. From the

commencement of hostilities this principal medical officer, or a military medical officer specially detailed, will form one of the defence committee, entrusted with the preparation of plans for the defence of the position. His duties are to advise respecting the organisation of the medical services in readiness for a state of siege, the accumulation and storage of the necessary drugs, stores, and comforts, the establishment of any necessary hospitals in addition to those already in existence, and sanitary measures generally.

He must take care that all men not likely to recover at an early date are evacuated, and that all medical officers under him thoroughly understand and perform their duties. He examines the points selected for dressing bombproofs.

The following different classes of hospitals are established in forts :—

- (1) fort hospitals (*Infirmaries de Fort*) ;
- (2) temporary hospitals of from 50 to 250 beds ; and
- (3) military hospitals already in existence.

The work in these is carried on as in time of peace. In addition regimental and main dressing stations will be established when necessary ; the latter will not be needed except during sorties, the former should be of a more or less permanent nature, and in the vicinity of the part of the works that is being attacked.

Regimental medical officers should be placed on a roster for duty in these.

116. *Defending force, Austrian.*—In the Austrian Service, as in others, a special principal medical officer is told off to superintend the medical services in fortified towns or forts. His duties as a whole are identical with those already detailed, and need not be again repeated. As a rule he will be the senior medical officer of the garrison already in the fort, but if not, it is the duty of that officer to make all necessary preparations and to carry on the work till the arrival of the principal medical officer especially detailed.

Special aid stations will be told off to certain sections of the fortifications, and each should be capable of taking in from 2·5 to 5 per cent. of the garrison of the section to which it belongs. They should be placed in bombproofs and at a distance from magazines, and fitted up similarly to field infirmaries. Dressing stations may be placed in conveniently situated hospitals, or arranged similarly to the above. During an attack the work of these stations must be regulated by circumstances, the regimental medical officers superintending the work in the

section of the works occupied by their corps. The establishment should be relieved every twelve to twenty-four hours. For transport to the various hospitals stretcher bearers should be taken from troops not actually engaged ; in addition civilians and wheeled transport should be used.

In the case of sorties special arrangements must be made, and when these are made in force, the full strength of the medical establishment must be maintained, and that of all outlying works situated in the direction of the sortie should be reinforced. Before the investment is completed and whenever it is interrupted, measures should be taken to complete equipment and to evacuate wounded. During the siege evacuation must give place to concentration, the worst cases being taken as far as possible from the fortifications, and cases of infectious disease segregated. In small detached works field infirmaries only need be established.

Fort hospitals are established with a maximum accommodation of 1,000 beds ; any such hospital may be divided into sections, but forms one administrative unit. For these hospitals bombproof houses should if possible be chosen, the windows being guarded with steel shutters. Casemates are not as a rule suitable, owing to insufficient light and ventilation. If bombproof houses are not available, then some conspicuous building should be chosen, so that the enemy may recognise the Geneva flag. A military medical officer should be appointed as commandant, and regimental medical officers or civilian practitioners be chosen for ordinary duties. The proportion of medical officers allowed will be 1 to every 100 patients ; and in addition one sick-attendant to every six beds, and one special attendant extra for every sixteen. One under-officer for every forty-two sick, and one officer to every forty men of the sanitary troops, that is, to every 200 patients, roughly. It should be possible to equip such a hospital, up to two-thirds of its full strength, from the sanitary troops and regimental establishments in garrison.

(The latest publication on this subject is "*Service de Santé dans les sièges des grands places de guerre.*" E. Cavoy, *medecin principal*, 1896.)"

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| Stretchers. |
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| 8'32 |
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APPENDIX A.

Comparative statement showing medical establishments of corps units.

| Unit. | | | | Strength, non-commissioned officers and men. | Medical officers. | Stretcher bearers, non-commissioned officers and men. | Sick attendants, non-commissioned officers and men. | Medical officers. | Stretchers. |
|----------------------------|-----|-----|-----|--|-------------------|---|---|-------------------|-------------|
| <i>Infantry Battalion.</i> | | | | | | | | % | % |
| German | ... | ... | ... | 1,030 | 3 | 16 | 4 | 1'94 | 3'88 |
| French | ... | ... | ... | 1,000 | 3 | 17 | 5 | 2'00 | 4'00 |
| Austrian | ... | ... | ... | 960 | 3 | 17 | 3 | 2'05 | 8'32 |
| <i>Infantry Regiment</i> | | | | (of three battalions). | | | | | |
| German | ... | ... | ... | 3,107 | 6 | 48 | 12 | 1'93 | 3'86 |
| French | ... | ... | ... | 3,000 | 6 | 52 | 16 | 2'00 | 4'00 |
| Austrian | ... | ... | ... | 2,900 | 5 | 52 | 6 | 1'72 | 8'21 |
| <i>Cavalry Regiment.</i> | | | | | | | | | |
| German | ... | ... | ... | 658 | 3 | ... | 4 | 4'49 | ... |
| French | ... | ... | ... | 800 | 3 | ... | 5 | 2'50 | ... |
| Austrian | ... | ... | ... | 1'100 | 3 | ... | 2 | 2'73 | ... |
| <i>German Artillery.</i> | | | | | | | | | |
| Four Field Batteries | ... | ... | ... | 602 | 2 | ... | ... | 2'89 | ... |
| Two Horse Batteries | ... | ... | ... | 340 | 2 | ... | ... | 5'88 | ... |
| <i>French Artillery.</i> | | | | | | | | | |
| Four Field Batteries | ... | ... | ... | 723 | 2 | 17 | ... | 2'75 | 5'50 |
| <i>Austrian Artillery.</i> | | | | | | | | | |
| Four Field Batteries | ... | ... | ... | 800 | 2 | 17 | 2 | 2'50 | 10'00 |
| Two Horse Batteries | ... | ... | ... | 300 | 1 | ... | ... | 2'56 | ... |

APPENDIX B.

Comparative statements of distribution of medical officers, ambulance transport, and field hospital accommodation in divisions and army corps of the three services.

| DIVISION. | GERMAN. | | | FRENCH. | | | AUSTRIAN. | | |
|--|---------|-------|-------|---------|-------|-------|-----------|-------|-------|
| | I | II | III | I | II | III | I | II | III |
| Medical officers present in each zone. | 12 | 19 | 30 | 24 | 7 | 20 | 12 | 14 | 7 |
| Medical officers % of total in each zone. | 19'67 | 31'15 | 49'18 | 47'06 | 13'72 | 39'32 | 36'37 | 42'42 | 31'21 |
| Stretchers can convey ... | 84 | ... | ... | 70 | ... | ... | 120 | ... | ... |
| Ambulance transport waggons, litters, and caolets can carry. | ... | 40 | ... | ... | 65 | ... | ... | 90 | 84 |
| Beds in field hospitals ... | ... | ... | 1,300 | ... | ... | 400 | ... | ... | 260 |

Analysis :—

Germans.—Medical officers of twelve battalions of infantry, one bearer company, six field hospitals, stretchers and waggons of one bearer company. Stretchers of twelve battalions of infantry. Beds in six field hospitals.

French.—As above, but only four field hospitals.

Austrians.—Medical officers of thirteen battalions of infantry, two battalions, Jagers, one divisional sanitary unit, and one section of a field hospital. Stretchers of fifteen battalions, ambulance transport waggons of unit, and of field hospital. (Columns of Teutonic Order and Red Cross Society.)

| ARMY CORPS. | GERMAN. | | | FRENCH. | | | AUSTRIAN. | | |
|--|---------|-------|-------|---------|-------|-------|-----------|-------|-------|
| | I | II | III | I | II | III | I | II | III |
| Medical officers present in each zone. | 35 | 46 | 60 | 50 | 21 | 40 | 36 | 42 | 59 |
| Medical officers % of total in each zone. | 19'08 | 35'11 | 45'81 | 45'04 | 18'92 | 36'04 | 37'11 | 43'30 | 19'59 |
| Stretchers can carry ... | 208 | ... | ... | 166 | ... | ... | 360 | ... | ... |
| Ambulance transport waggons, litters, and caolets can carry. | ... | 120 | ... | ... | 198 | ... | ... | 270 | 152 |
| Beds in field hospitals ... | ... | ... | 2,400 | ... | ... | 800 | ... | ... | 760 |

Analysis :—

Germans.—Medical officers of twenty-four battalions of infantry, one battalion, Jagers, three bearer companies, twelve field hospitals. Stretchers and waggons of three bearer companies. Beds in twelve field hospitals.

French.—As above, but *Chasseurs à pied* instead of Jagers, and only eight field hospitals.

Austrian.—Three divisions as above.

APPENDIX C.

TENTS AND HUTS USED FOR HOSPITALS.

In the German regulations we find two classes of tents described—

(1) The dressing tent (*Verbindezelt*) of which there are two patterns ; and

(2) the hospital tent (*Keankenzelt*).

1. *Dressing tent, German*.—Two dressing tents are allowed to every bearer company ; they are intended for use at the main dressing station when other shelter is not available. The older pattern tent is a single fly ridge pole tent, with end walls, each composed of two overlapping pieces of canvas each. It is in appearance similar to the inner fly of an ordinary Cabul tent. The ground plan is 13' 6" \times 11', the height at the ridge pole 8' 6", at the sides slightly over 6'. Its cubic capacity is 1,135 cubic feet and its weight 181 lbs. 8 oz. The ridge pole is supported by two large tent poles, and there are in addition twelve smaller poles, which support the junction of the roof with the side walls. The feet of the two large tent poles rest on cross-shaped pieces of wood to avoid sinking. Doors are formed at either end by tying up the canvas flaps. The latter pattern tent (denominated C-87) is also a ridge pole tent ; the ridge pole is, however, considerably shorter than the breadth of the tent, the general shape of which is that of a shallow shed, one of the longer sides being entirely open. The ground plan is 25' 3" \times 11' 6", the ridge pole being of the latter length. The height at the ridge is 8' 6" and at the sides a little over 6'. The cubic capacity of tent is 2,100 cubic feet and the weight 270 lbs. The ridge pole rests on two main tent poles, and there are in addition four short poles along each short end and two poles of intermediate length placed on the closed long side of the tent. These three walls have no opening in the canvas ; the fourth side is absolutely open. The advantages of this tent over the older pattern are its larger size, unaccompanied by a

corresponding increase in weight, and the better arrangement of the space available. The lighting of the tent would be much better than in the old pattern, and the operating table would have ample space on three sides. The disadvantage is the open long side which on a gusty day might be found awkward as weakening the tent. In case of a change of the wind, too, the direction of the opening cannot be changed without shifting the tent. This difficulty might be obviated by having the canvas forming the long side in a separate piece to lace on to the walls and roof. With each tent a flag and lantern staff is provided (*Signal Vorrichtung*); this consists of a jointed staff, bearing a Geneva cross flag, $4' \times 2' 9''$, and a square lantern. The flag is kept constantly open by means of a stretcher of wood, passing from the lower corner near the staff to the further top corner. The lantern has three red glasses and one white glass; the latter should always face the door of the tent. The staff is placed in the ground at such a distance from the door of the tent as not to prevent the easy access of a loaded stretcher. The weight of the staff and accessories is about 930 lbs.

2. *Hospital tent, German.*—The hospital tent is a large double fly marquee, with a ridge pole. The ground plan is a rectangle, $29' 6'' \times 24' 6''$. Its height at the ridge is nearly $14'$, at the sides $5' 3''$. Its cubic capacity is nearly 7,000', and its weight about 930 lbs. It is supported on three main tent poles which hold up the ridge pole, and on eighteen smaller poles which support the junction of the roof and side walls; there are in addition four intermediate poles placed so as to form doors in the end walls; these stand at a distance of $6' 6''$ on either side of the centre line of the tent. The inner fly of the tent is exactly similar to the old pattern dressing tent, but instead of resting on it hangs from the ridge pole by loops of webbing in the ordinary manner. The outer fly is merely a roof without side or end walls, it projects $3' 3''$ beyond the side walls in an eave. The space between the two flies is greatest under the ridge pole where it is about $9''$. From this point (considering a transverse section of the tent) the space gradually narrows as we descend, till, where the door poles of the tent are placed, the two flies are closely approximated and remain so till we come to the side poles; here the inner fly drops vertically in the side walls, and the outer fly continues in the projecting eave. The door poles and side poles pass through both flies, which are thus kept closely together. The interior of the tent has a small space curtained off at one end, which is divided in the middle line of the tent to form on one side a closet, on the other

a " Bunk " for the attendant on duty. The nett cubic space per person after this deduction is about 500 cubic feet, 12 patients being accommodated in each tent. Eighty such tents are supplied in every hospital reserve dépôt. They are intended for use in field or other hospitals of a temporary nature, when other accommodation is not available. One under-officer and six men are necessary to pitch this tent. A national flag is flown from the centre pole, Geneva flags from those at each end above the tent.

In the French regulations we have three patterns of tent described, *viz.*—

(1) *Tente d'Ambulance (Système Tollet)* ; and

(2) *Fourgon-Tente (Système Tortoise)* ; and

(3) *Tentes d'Hôpital (Système Tollet)*.

1. *Tente d'Ambulance, French.*—The *Tente d'Ambulance* is supplied for use at the main dressing station, two being allowed for each divisional bearer company. The ground plan is octagonal and the roof arched. The tent is supported on a framework made of curved supports joined together by cross-pieces, and has more the appearance of a hut than a tent. Its length is 13' 6", breadth 13', and height 7' 9". Its cubic capacity is not given, but is roughly speaking 1,450 cubic feet. This tent is intended for use as an operation tent, for which however the lighting would seem rather deficient, and can also accommodate eighteen patients. The tent has side flaps forming a verandah on either side which could also be used. The weight of the tent is 253 lbs.

2. *Fourgon-Tente, French.*—The *Fourgon-Tente* is on the well known Tortoise-system ; it does not need description. It is intended to accommodate thirty patients. It is not stated how many of these tents are allowed, or under what circumstances.

3. *Hospital tent, French.*—The *Tente d'Hôpital (Système Tollet)* is on the same model as the corresponding *Tente d'Ambulance* ; it is a good deal larger however, measuring 49' 3" long \times 16' 6" broad and 16' 6" high. It is more of the nature of a hut than what we generally understand by the word tent : the figure given in the regulations shows it pitched on a permanent foundation. One such tent accommodates twenty-eight patients.

Dressing tent, Austrian.—The only regulation tent described by Cron is the *Verbindeselt* or dressing tent. This is a ridge pole tent with circular ends : length of ground plan 17' 6", breadth 13', height at ridge nearly 10'. The cubic contents are

roughly about 600 cubic feet. The ridge pole is supported in the centre only by a single pole. The tent opens at either end. The weight is not given. One tent is carried by the medical reserve store section of the divisional sanitary unit. The column of the Teutonic Order also carries a tent, the Operations-Doppelzelt, but I have been unable to procure a description of this.

The following huts are described in the various regulations :—

Portable hut, German.—In the German regulations a form of hut 92' long and 22' broad, with a ridge roof, is figured. This hut is substantially made and raised from the ground to an extent of about a foot on brick foundations. These foundations consist of short pillars, about a foot square, arranged in three parallel rows; the rows being about 10' apart, and the pillars in each row about 3' 3" apart. Directly on these pillars rest beams of wood, 6½" square, which support the floor of the hut. On those of the two outside rows rest upright poles of the same size as the beams, and 9' 9" in height; the upper ends of each pair of vertical uprights are joined by cross beams. The roof itself is formed by interlacing beams, which, starting from the top of each pair of vertical uprights, cross each other at a height of 16' 9" from the floor of the hut, and then projecting a little over 2' support a small secondary ridge roof. The skeleton of the hut is completed by horizontal tie-beams, 6" square, running longitudinally from upright to upright, at top and bottom, and at a height of 3' 3" from the floor. This skeleton framework is then covered over with boarding: ten windows are left on each side, each being of a breadth equivalent to the space between two uprights, the sill being formed by the longitudinal tie 3' 3" from the floor. Viewing a ground plan, we see at one end a lateral projection; this consists of a closet, and a short passage connecting it with the interior of the hut. At the other end of the hut two small rooms are partitioned off one on each side of the hut, a narrow passage being left between them. One of these rooms is used for preparing tea, etc., in, and also as a bathroom, the other accommodates a sick attendant. These rooms open not into the ward but into the passage, and the latter is shut off from the ward by a curtain. There are two doors to the hut, one a single one opening into the passage just mentioned, 4' broad and a little over 7' high; the other a double door opening into the main body of the hut at the other end, of the same height and 7' broad.

Ventilation is carried on through the roof; a longitudinal aperture being left in the main roof, and a gap between this

and the ridge roof above. In cold weather this opening may be to a greater or less extent closed by slats of wood; in severe cold the walls may be protected by a layer of straw, 2" to 3" thick, kept in place by strips of iron or wire, and well plastered over with clay. In other cases the walls may be made double and the interval filled in with brickwork, ashes or tan. Stoves may also be supplied at the rate of one per 10,000 cubic feet of air space. The available cubic space of a hut constructed as above described, after deducting the small rooms, is about 22,000 cubic feet; if a continuous wood-ed ceiling be supplied (the regulations are not quite clear as to whether this is done or not), it will be about four-fifths of this. It is recommended that 1,000 to 1,300 cubic feet should be allowed per patient, which permits accommodation for eighteen to twenty-two patients in one of these huts. As a matter of fact, it would probably be difficult to accommodate more than eighteen owing to the arrangement of the windows. These huts are intended for use in reserve or other comparatively permanent hospitals. The erection of temporary huts with such matter as may come in handy, planking, stout canvas, etc., is also contemplated, but no particular directions are given.

Portable huts, French.—In the French regulations two patterns of hut (*Système Doecker* and *Système Espitalier*) are described. The former is a portable wooden hut with a ridge roof, in which skylights are placed for light and ventilation; it is 49' in length, 16' in breadth, and 16' in height; its cubic capacity 10,400 cubic feet and its weight $7\frac{3}{4}$ cwt. It is intended to hold sixteen patients at 675 cubic feet per head (a rather insufficient allowance compared with the German hut). The floor of the hut is raised from the ground, and it is intended that the packing cases in which the different portions of the hut are packed should be used in its construction.

The walls are made of wooden panels, and painted externally of a yellow colour, and rendered impermeable. Internally they are covered with an incombustible material, and painted a light green. The hut is provided with a door at each end, and there are in addition three hinged panels on each side which can be opened and closed at pleasure. A stove is provided for warming.

The second pattern is similar in design, but is made of iron and weighs 136. cwt.

Portable huts, Austrian.—There are no particular patterns of hut described in the Austrian regulations; Cron, however, gives a description of a long hut made of green boughs, and thatched over, somewhat of the nature of an elongated

wigwam. He also mentions the Doecker hut as described above, but allows for its holding twenty beds.

APPENDIX D.

BEDS FOR FIELD HOSPITAL.

The German regulations describe two patterns of bedstead for use in field hospitals.

1. *Emergency bedstead, German.*—An emergency bedstead (*Nothfeldbettstelle*) for use when a considerable number of beds are wanted in a comparatively short space of time, and when it is not necessary that they should be portable. This bed is made as follows:—Four legs are prepared, each 1 yard long and $1\frac{1}{4}$ " \times $2\frac{1}{2}$ " in cross section; these are joined together by two long side-pieces, and two short cross-pieces, of the same thickness as the legs; the length of the side-pieces being $79\frac{1}{2}$ ", that of the short pieces 28". The side-pieces are nailed to the outer aspect, the cross-pieces to the inner aspect of the legs. On this framework the floor of the bed is laid. This consists of two or three planks (according to their breadth, the total being $30\frac{1}{2}$ " to $31\frac{1}{2}$ "), which rest directly on the upper surface of the cross-pieces and are cut away at the four corners to permit of their receiving the four legs. The height of this bed-floor from the ground should be about 21", the cross-pieces being fastened with their upper borders at this distance from the ground. The side-pieces form an edge at each side, their lower borders being slightly higher than the upper borders of the cross-pieces. The outer planks project laterally beyond the bed legs to a distance equivalent to the thickness of the side-pieces. The lateral edges of the bed-floor are thus flush with the outer surface of the cross-pieces. The spaces between the different planks of the bed-floor should be about $\frac{1}{4}$ " to 1" each. A foot board is now nailed to the inner aspect of the legs at one end of the bed, and a head board permanently fixed at the other end, at an angle of about thirty to the plane of the bed-floor. The two legs at the head end of the bed are joined at the top by a cross-piece, to which a vertical bar intended to carry the bed head ticket may be affixed.

2. *Plank bedstead, German.*—The plank bedstead (*Bretter-Feldbettstelle*). This is a portable bed, the materials for the manufacture of which are carried in the field hospitals equipment; these consist of various planks, about an inch thick. The legs of the bed are about 3' long and 4" broad;

these are fastened together permanently by the head and foot boards, which are nailed to the internal aspect of the legs. These boards are 30" in length and $17\frac{1}{2}$ " in breadth, and they are so nailed that their ends and upper edges are flush with the outer edges and tops of the legs. At a distance of 19" from the lower end of each leg a vertical slit, 1" in breadth and 4" long, is cut through the leg and the attached head or foot board. The side-pieces of the bed are composed of planks, $6\frac{1}{2}$ ' long and 6" in breadth. At each end of each plank a tenon, 4" long and $3\frac{1}{2}$ " broad, is cut; these tenons are intended to fit into the vertical slits in the legs. The framework of the legs can now be put together, the tenons are pushed through the slits and secured by wedges and transverse wooded pegs. The ends of the side-pieces project about 2" beyond the outer aspects of the legs. The lower edges of side-pieces, head and foot boards, are on a level or nearly so. Along the lower edge of each side-piece, on its inner aspect, a strip of wood, 71" long, $1\frac{1}{2}$ " broad, and 1" thick, is nailed. These act as the support of the bed-floor. The bed-floor is composed of a number of planks, 30" long, and of varying breadth. These are laid transversely across the bed; their ends rest on the strips of wood above-mentioned. A head rest placed at an angle of about 30° is placed at the head end of the bed. On the back of the head board a vertical upright is fastened to carry the bed head ticket. The bed-floor may be made of canvas, and in that case it is fastened by nails to the strips on the side-pieces. The weight of such a bedstead is about $96\frac{3}{4}$ lbs., with a wooden bed-floor, $73\frac{3}{4}$ lbs., with a canvas bed-floor. The average price of such a bed is 4 marks, 50 pfennig; that of the pattern described first about 3 marks, 50 pfennig.

The French regulations describe two patterns of bed:—

1. *Emergency bedstead, French.*—Take four pieces of wood, 2" square, for the legs; those destined for the head of the bed being 3' 6" long, and those for the foot of the bed 2' 6" long. The legs of either end are fastened to each other by cross-pieces of planking, $3' 3" \times 8\frac{1}{2}"$, nailed to their inner aspects, the lower end of each cross-piece being about 9" from the ground. Two side-pieces are now nailed to the legs; these are formed of planks, $6' 6" \times 8\frac{1}{2}"$ broad, and they are fastened in such a manner that their lower edges are 1' 9" from the ground. The bed-floor is composed of three planks, 6' 6" in length, the ends of which rest on and project beyond the head and foot cross-pieces, being flush with the outer

aspects of the legs. Two additional thin side-pieces are now nailed below the large side-pieces already described in such a manner that their upper edges are on a slightly lower level than those of the head and foot cross-pieces. A centre cross-piece is then fastened on to these thin side-pieces, to give extra support to the bed-floor. When planks, 6' 6" long, cannot be procured for the bed-floor, planks half this length may be used, each plank being nailed to the centre cross-piece. A head board is nailed to the outer aspect of the legs at the head end of the bed, and the upper extremities of the legs at either end are joined by cross-pieces of planking nailed to their tops. That at the head should be broad and may serve as a table for the reception of cups, etc.

2. *Trestle bed, French.*—A trestle bed consisting of four 1" planks, 6' 6" by 9', supported on two strong trestles. These trestles are made on the plan of an ordinary sawing stool, and should be about 3' 3" in length, and made of wood, about 2" square in section. A slighter form of trestle may also be made, the legs of which are X-shaped.

The use of strong pickets of wood to support stretcher handles is also recommended: the handles being fastened by a figure of eight lashing, or received into notches cut in the heads of the pickets.

Emergency bedstead, Austrian.—The Austrian medical regulations do not mention any patterns of field hospital bedstead, but Cron describes the emergency bedstead of the German Service.

PREVENTION OF RIFLE THEFTS.

BY LIEUTENANT-COLONEL F. S. VIVIAN, COMMANDING 38TH DOGRAS.

There is a steady demand on the frontier for rifles, and as thieves continue to break through and steal, the following suggestions may be of some use :—

There are two methods of stealing arms—

- (a) from rifle-racks ;
- (b) from sentries, who are generally first placed *hors de combat*.

It may be as well to deal first with the security of arms in cantonments, and thefts from arm-racks.

But, before going further, I would like to say that, when this note was first written, the arming of sentries with old smooth-bore fusils, or anything of little value, but effective for use at close quarters, was strongly advocated. This subject has since been fully ventilated in the columns of the *Pioneer*. It is therefore unnecessary to enter into it in detail, though it may be added, to strengthen the cause, that experiments with buckshot cartridges supplied by the Ordnance Department and fired from Martini rifles have been most unsatisfactory. There is no doubt whatever that the plan of arming sentries with something less tempting than a rifle should be adopted at once. We all know how the frog seeing a small boy with a stone in his hand removed temptation from his way by diving ! The example is a good one to follow. The inducement to steal an old fusil would be so small as not to be worth the risks run, and so not only would the loss of many rifles be avoided, but valuable lives would also be saved.

In British corps rifles are kept in racks in the men's barrack-rooms. In native corps, excepting at some of the frontier stations, they are kept in bells-of-arms under sentries.

I think I am right in saying that no case of loss of arms out of bells-of-arms in a native corps has ever occurred ; while rifles are frequently stolen from racks in the barracks of British troops. In April 1897 eight were stolen in this way at one

fell swoop, and quite recently six more were taken. These two thefts occurred in Nowshera, apparently under very similar conditions.

Well, if the bells-of-arms system enjoys an immunity from rifle thieves the question immediately suggests itself: Why not adopt a similar plan for British corps? There must be objections, and expense of course would be one. But the question of the prevention of rifle thefts has now become so very important that expense must, one would suppose, give way; even in these hard times.

Another and a more valid objection would be the necessity for having quick access to the arms. For obvious reasons it will be as well to avoid the discussion of this question in all its aspects. Let us suppose the necessity to exist. Then something on the lines of the bells-of-arms system suggests itself.

The arm-rack in use in British corps is too well known to require detailed description. It would seem impossible, with the precautions taken, for thieves to be successful in removing rifles from these racks. The rifles each and all are secured by iron rods which pass through the trigger guards, the rods themselves being secured at the end of the rack by an iron "key" which prevents their withdrawal, and which is padlocked. The racks too are secured, so that they cannot be carried bodily away. In addition, as a rule, one soldier sleeps on either side of the rack. But all these precautions have not prevented several cases of thefts, including the two already mentioned.

As an additional security, on the lines of the bells-of-arms system, I would suggest that a portion of each barrack-room should be partitioned off with strong iron bars, and the rifles placed in the existing racks in this partition or cell.

One advantage of this arrangement would be that section commanders, or other men specially told off, could enter the cell and pass the rifles quickly out to the men through the bars.

As an alternative, it would, I think, be quite possible to devise a niche in the wall at each man's bed head in which his rifle could be secured, its removal being impossible without also moving the cot bodily.

But, though I have no hesitation in saying that if a good system exists, and orders are carried out, thefts from barracks ought to be impossible, experience shows that hitherto the rifle-thief has been successful, and the only really safe plan is to have the arms under the eye of a sentry.

The partition plan above suggested admits of this, and that, too, without exposing the men either to the inclemency of the weather or the same risk of being shot or stabbed as an outside sentry runs. To have a sentry in each barrack even would be to make the duties too heavy ; while having them in each section would be prohibitive. The plan of having a man sitting awake for an hour at a time might be followed. It is not an arduous duty, and it is one practised in many native regiments in the Punjab when in camp.

When the mischief is done and arms have been stolen, they are generally kept hidden close at hand for a time, so a thorough search should be made. If this proves ineffective, men should be put about in likely places, hidden of course, on two or three succeeding nights. There is every chance of recovering the arms and catching the thieves when they return to remove the rifles. This is what happened lately in Nowshera. It is a mistake to patrol.

Thefts in camp are more difficult even to prevent than thefts from barracks.

The only plan is to make each man responsible for his rifle, and the best way to keep the arms is in shallow trenches, covered by bedding, and the men lying on the top of all. Each man should lie on his own rifle, or on a part of it, and care should be taken that no rifle is near any edge of a tent.

Outside sentries should be reduced to a minimum, and a man kept awake in each tent as before suggested.

Sentries should be so posted that adjacent men are being relieved at alternate hours. Thus, supposing there are four guards round the camp, Nos. 1 and 3 post at 7, 9, 11 o'clock, etc., Nos. 2 and 4 at 8, 10, 12 o'clock, etc., and the non-commissioned officers of Nos. 1 and 3 guards visit the sentries of Nos. 2 and 4 when posting their own men. This plan is equally applicable to cantonments.

In some regiments the rifles are secured to the men's wrists by a log line or by the sling. I don't think this is of much use. If a thief has succeeded so far as to snatch at a sentry's rifle, a log line or even a sling would soon be cut by the razor-like Pathan knife ; if, indeed, the sentry himself did not fall a victim. If the rifle is to be secured at all to the man's person, I would suggest a steel chain long enough of course to admit of the free use of the rifle. But the idea does not commend itself ; there is something repulsive in it. One would like to think that one's own men were, man for man, as good as the

rifle-thief, and as likely as he to come off victorious at close quarters.

But let no one look upon the rifle-thief as a despicable foe. One cannot admire him or his system. He works in the dusk ; he is absolutely unscrupulous ; he is in fact a thief and a murderer. But his pluck is undeniable. Hitherto his successes have been out of all proportion to his failures. To circumvent him should be the aim and ambition of all soldiers, British or Native.

I once heard an American raconteur say that, on enquiring the name of a certain Mrs. New's thirteenth baby, he was told it was " Nothing New " ! I only hope the suggestions I have made in this note may not be dubbed the same.

PROPOSAL FOR INFANTRY ATTACK IN MOUNTAIN WARFARE.

BY R. C.

The infantry attack as laid down in the Infantry Drill Book of 1896 has for its aim "the greatest development of infantry fire at the decisive moment under the most careful supervision and control."

This is doubtless the object for which to strike when there is an enemy who means to hold his ground to the last, and who will bring into the firing line every available rifle to repel the attack.

In hill warfare against savage tribes these conditions do not exist. The enemy, mountaineers by birth, knowing every inch of the ground, good shots, and good stalkers, carry on a guerilla warfare. They hold points of vantage until their flanks are turned or until the attacking force advances under heavy fire which it cannot return with equal efficacy, to within assaulting distance, when they melt away. They know they cannot repel the attack, but they also know they can make the advancing force suffer heavily, by firing from behind sangars and rocks on men who are scrambling over rough ground and up precipitous hillsides in battle formation.

Having inflicted this loss, they retire to other advantageous positions and watch events.

Should the attacking force retire, they watch their opportunity, and reappear as suddenly as they disappeared, pouring in rifle fire from behind rocks and natural sangars. When they see their chance, they will press home their attack on isolated or belated bodies, who are retiring, hampered with wounded, down hillsides, across ravines, and over ground that offers unexpected obstacles at every turn.

Such briefly are the tactics we have to contend against on our North-West Frontier, and our present form of attack, evolved as it has been with a view of meeting trained troops on more or less open ground, does not appear to be suited to them.

What seems to be necessary is a more flexible line of advance and retirement, where supporting bodies would be in smaller units and consequently more mobile, and so able to traverse without check or crowding the same ground as those bodies in advance.

This, it is thought, might be attained by a system of "groups."

Each group, while capable of offering stubborn resistance, pushing on from vantage to vantage, stalking the position, followed closely by supporting groups. Having gained one point, each group would wait for its supporting group to arrive before pushing on again.

The whole line of groups would work together by signal, waiting for one another when necessary, supporting one another with flanking fire, and in fact forming a flexible chain which would conform to the features of the ground over which it advanced.

A group here and there might be cut up, but the enemy would not penetrate further, as he would be met by the supporting groups and supports, and have his retreat threatened by the groups on the right and left.

The position of the enemy, if he waited, would be pierced here and there by groups which would be rapidly supported, and once this took place, the enemy would retreat.

In retiring, the foremost groups would retire each to their respective supporting groups, and then passing through to some vantage ground in rear, await the latter. They would probably know the ground, as it would be very likely the same they had just passed over, and being small bodies there would be no crush or crowding.

Everything would depend on training groups to be at once self-reliant, and yet to work in unison with those on their right, left and rear. By careful training in peace time, the system could be made so perfect that once the direction of attack was given, and orders issued for the advance, a battalion would carry out the attack, and subsequent retirement, if necessary, entirely by signals.

The attached diagrams illustrate what is meant.

SOME FOREIGN ARTICLES OF SPECIAL INTEREST.

A GERMAN ACCOUNT OF THE NORTH-WEST FRONTIER CAMPAIGN OF 1897-98.

TRANSLATED BY CAPTAIN H. T. KENNY, 2ND BOMBAY LANCERS.

The following account of the Frontier Campaign was delivered in the form of a lecture by Captain H. Wenninger of the General Staff on January 29th, 1898, and was subsequently reproduced in the "Jahrbücher für die deutsche Armee und Marine" for May 1898.

Captain Wenninger in the first part of his article gives a description of the Army in India, its distribution into four Army Corps and general organisation. He also touches on the subjects of recruiting, arming and mobilisation and displays a very fairly accurate knowledge of his subject. The second portion of his lecture deals with the conduct and operations of the Frontier Campaign and this portion has been translated as it is generally interesting to "see ourselves as others see us" and to learn the view taken by a foreign military critic of our late operations.

THE FRONTIER CAMPAIGN.

THE NORTH-WEST FRONTIER.

For several decades the English have been much perturbed by apprehensions concerning their Indian North-West Frontier and for this they have to thank the Russians. European Russia is up to the present day shut off from the ocean: in Europe she can only reach the open sea by a complete overthrow of all existing political systems—*i.e.*, it is practically unattainable. Her increasing strength, her capacity for expansion is therefore driving Russia forward in another direction, in a direction which no one less than Napoleon I pointed out to the Russians in 1807 at the Tilsit Conference, *vis.*—contre les possessions de la compagnie des Indes.

The way was far, slowly but surely the Russians advancing through steppes and deserts left it behind them. To-day the separating zone is reduced from many thousand miles to a few hundreds and the English themselves have also contributed to the diminution of the neutral intervening sphere. It is at the present time with them as with the Romans of old who ever advanced the boundaries of their empire merely to protect themselves against the barbarian races.

P

For forty years have the English laboured to make Afghanistan a buffer State, serviceable to them alone. With this object they took possession of the Punjab, merely to become frontier neighbours of the Afghans. In two campaigns, 1839-42 and 1876-78, they sought to bend Afghanistan to their will—from the former only one single man returned out of 17,000, while the latter cost nearly fifty million pounds and ended in a severe political humiliation.

Since those days they have abandoned every thought of vengeance and the aimed-at establishment of a protectorate over Afghanistan—nay more, in order to at least secure for herself the advantages of trade relations with Afghanistan, *the Indian Government has for many years paid an annual tribute to the Afghan frontier tribes, who for this undertake to protect the trade caravans.*

But this gold-bought friendship has in recent days come to nothing, and this as well must be attributed to the "fear of Russia."

Before I proceed to the details of the late frontier war a short description of the country and people of the frontier region must be given—all the more so because a proper idea of the peculiar nature of the country cannot be formed from a comparison with any single European theatre of war. The Pamirs and Hindu Kush send out southwards three parallel chains of hills of an average height of 9,800 feet, the summits rising to 15,000 feet. These ranges are united by transverse spurs, of which the Safed-Koh range, south of Cabul, is the most important. This mountain system, which accompanies the Indus to its mouth and forms the strong natural boundary of India towards the north-west, is in its whole breadth only broken through, at one spot, by the Cabul river. To its course are linked the renowned passes which from days of old form the "Gate of India," *viz.*, on the Indian side the Khyber and towards Afghanistan the Baiman Pass.

According to the latest investigations which York v. Wartenburg has included in his most recent works it is here on the line joining Herat-Cabul-Peshawar that we must look for the path of Alexander the Great. Here Tamerlane penetrated to India, here also will the Russians find their way.¹

¹ In recent times the Russians appear to be planning a continuation of the Trans-Caspian Railway to the Persian Gulf and an invasion through Baluchistan.

On both sides of the Cabul river the mountain district preserves its particular peculiarities in the shape of remarkably deep-cut water courses which only here and there form valleys suitable for cultivation and settlements, but for the most part squeeze themselves between sheer vertical bluffs and often wind along for many miles without any practicable path along their banks. These deeply cut and narrow valleys which can only be compared to our Alpine river-gorges form the only means of access to the passes, and one has to proceed right up to their sources in order to pass over the watershed with its steep ascents and descents.

We must consequently not think of our Alpine passes if we wish to form any conception of the passes of the Cabul district. We must also strike out of our mind's eye all valley roads, bridges, towns and numerous villages, if we want by way of comparison to apply to

Afridi mountain warfare the conditions of the Alps as they are known to us.

The likening of this region to our Bavarian mountain region, which a correspondent of the M. N. N.* attempted, is therefore only in part applicable. In place of the roads Wolfratshausen-Tölz and Weilheim-Partenkirchen-Mittenwald with the broad open tracts lying alongside them and numerous cross communications, we must, to form a correct picture, substitute a road which at its broadest part is somewhat about the width of the Loisach Valley near Oberau. This road winds for hours at a stretch through ravine gorges and in a way accomplishes the passage over the "Stony Sea."

For instance the Khyber Pass is described as follows by travellers :—"The pass is about 40 miles long. At the very commencement, near Fort Jamrud, the open space which is only some 150 yards broad becomes very quickly narrowed by bluffs and cliffs for a continued stretch of 17 miles to an average width of 60 yards and by degrees to 12 yards. At the end of this difficult stretch lies Fort Ali Musjid, 810 feet above the pass road, which bars the exit from the defile into a somewhat broader valley. Near Landi Kotal the bluffs again trend together and indeed approach one another so closely that laden camels can hardly pass each other. Vehicles, even of the most simple kind, cannot therefore traverse the most practicable of the north-west passes. Travellers with but little baggage take always two to three days to go from Jamrud *viâ* the Khyber Pass to Lalpura in the Cabul Valley ; caravans and columns of troops take four to five days. And withal one only arrives at the further end of a pass the height of which is at the outside but 3,600 feet !

The following is a brief summary of the character of the mountain region. A system of parallel chains crossing each other from north to south and east to west forms inaccessible plateaux, cut up by chasms and bare of trees, which break off towards the water-courses in extended spurs. The movements of troops are thereby restricted to the most narrow valley paths and even for hours at a stretch to the beds of shallow streams. Deployments into fighting formation are only possible in the rarely occurring broadenings of the valley or at the river head and on the water-shed. Further, vehicles cannot be used.

Such is the military-geography picture of the theatre of war to which we must adhere when criticising the conduct of the war by the English.

To the peculiar features of the country must be added the peculiar characteristics of its inhabitants. As regards the latter, Karl Ritter has already written--"The west of the Indus Valley stands in the greatest contrast to the east. Among the highland folk the struggling for independence and freedom is the dominating trait which distinguishes them from all their eastern confrères. Bravery is their cardinal virtue. In comparison with India the climate here is cooler and more bracing. There is the romantic mountain nature and the absence of human beings ; with their vigorous manly forms and their European

physiognomy they form a striking contrast to the Indian. In opposition to the cowardice and apathy of the Indian who has been so long under the yoke there is to be found here energy, activity of body and mind, turbulence, and contempt of effeminacy. The Hindu as a soldier is the laughing stock of the Afghan, while the latter is everywhere respected as a warrior. The character of the men of a country follows the nature of the country which itself is the cradle of the people."

The Khyber tribes, the Afridis, Orakzais and Mohmunds, are specially gifted with a warlike spirit.

In spite of their small numbers (about 150,000, of whom some 40,000 are capable of bearing arms) these frontier tribes have for centuries maintained the most complete independence. The Amir of Afghanistan is only nominally their lord; in fact he too, like the Indian Government, pays them a yearly subsidy for keeping open the pass and guarding it for commerce. War is their trade, fine weapons their passion; for modern fire-arms they pay a very high price. Like the Tyrolese and Basques they are born sharpshooters. Familiar with every by-path, the wild character of the country serves them as the best weapon of defence. Guerilla warfare in their highlands has been their speciality for centuries. Such are the opponents of the English in the present conflict.

So long as tribute was paid regularly to them and in addition their freedom remained inviolate, the Khyber tribes ever behaved as good neighbours, and during the Afghan war maintained neutrality.

THE ORIGIN OF THE WAR.

For some years the English have considerably encroached on and interfered with the independent character of these highland folk. Of late years the Trans-Caspian Railway made the English feel nervous.¹

¹ A Russian wit calls the nervousness of the English on account of the carrying forward of the Trans-Caspian Railway—Mervousness.

In 1893 they agreed with the Amir of Afghanistan on a new frontier line passing over the mountain summits, whereby Chitral, Bajaur and Swat, as also the Afridi and Orakzai country, were included in the "sphere of interest."

As the Amir was never able to do anything with the refractory highlanders, it was a matter of indifference to him to whom they belonged; during the quarrel and strife too the former maintained apparently, at any rate, an attitude of neutrality. Although the designation "sphere of interest" did not signify any exact fixing of frontier boundary, for, in reality, it was only a mysterious phrase, as an English General, Sir John Adye, has expressed it in his recently published pamphlet, still maps were printed in which a boundary line enclosed the independent mountain tribes as quasi-English subjects. The mountain folk very quickly learnt, it is evident, of the transaction which seemed to threaten their freedom.

When the present advanced English military posts were established in Chitral and in the upper Indus Valley, when in addition a direct military road to Chitral with fortified blockhouses was constructed, their repugnance soon manifested itself in active measures which however at the commencement lacked unity.

In the spring of 1895 the English fort d'arrêt at Chitral was

attacked; the garrison, however, succeeded in holding out until relief came. Experienced officers it is true urgently counselled the withdrawal of the posts, especially as threatening symptoms of a greater upheaval were on the increase. Nevertheless the Government determined to leave as they were the isolated posts in Chitral and at the Malakand Pass, where the Chitral road crosses from the Cabul into the Swat Valley.

Suddenly in the early summer of 1897 the English were surprised by a universal uprising of the mountain folk.

The striking unanimity of the revolt of tribes, who otherwise for the most part were exceedingly disunited amongst themselves, was according to the English idea connected with and caused by the victory of the Turks in Europe and was interpreted as a symptom of a Pan-Islamic movement. To contradict this however was the fact that the Mahommedans on both sides of the hills with a few isolated exceptions kept quiet. It is true that the Mullahs, the Mahommedan priests, placed themselves at the head of the uprising *and that religious instigation was the means to the end in the general upheaval. The inner cause of the revolt is without any doubt, the jealous preservation of their ancient independence which was menaced by the English.*

TOCHI.

The first signal of the outbreak was the surprising of a small English escort on June 10th, 1897, at Maizar near Sheranni in the Tochi Valley, south-west of Kohat. A punitive expedition was forthwith (within ten days) organized at Bannu and consisted of two mixed brigades.

It found the Tochi Valley deserted. The abandoned villages were burnt down, a measure which has been cast in the teeth of the English as barbarous, but which was indispensable in order to procure for themselves somehow or other the respect of the wild mountain folk. The omission of this measure would have been regarded as weakness by the enemy.

SWAT.

More serious was the outbreak in the Swat Valley. On July 26th the English post at the Malakand reported by telegraph the threatening assembly of armed masses in front of the Fort and in the Swat Valley itself before Fort Chakdara which covers the crossing of the Chitral road over the river.

This telegram was the first and last news for the line was immediately cut. With praiseworthy rapidity an expedition of three mixed brigades, strong in mountain artillery, was mobilised in Rawal Pindi and collected in Mardan and sent forward with all haste on July 29th under Major-General Blood. Meanwhile Fort Malakand had successfully beaten back numerous night attacks. On August 1st General Blood with his troops entered the pass and almost without any fighting relieved the fort. On August 2nd after a short fight he dispersed the enemy's bands from Fort Chakdara. The very heavy losses of the enemy (estimated at three thousand) broke the power of the revolt in the Swat Valley.

Only once again on August 17th did some thousand or so of the enemy

range themselves for battle, and with similar ill success. By the end of August the whole valley up to Burrikot was pacified and indeed lastingly quieted, for in the autumn the various tribes came in and gave up their fire-arms.

These rapid successes were to be sure not gained against Afghans: the tribes in the Swat Valley are much more Hindustanis, on whose fighting capacities the Afghan, as already stated, looks down with contempt.

MOHMUNDS AND BUNER.

Hardly had Blood's expeditionary force become again available, when at the end of September it was detailed to form part of a punitive expedition against the Mohmunds. This tribe, living in the angle between the Swat and Cabul rivers, had assembled at the beginning of August under the leadership of the fanatical Mulla Hadda with a strength of from six to ten thousand armed men and now threatened the Chitral road which is so especially dear to English hearts. On this account and from the greater importance of the Mohmunds, a second expeditionary force was formed out of the Reserve Brigade which was mobilised in August. It was under the personal leadership of Lieutenant-General Elles, Commanding the Troops of the Punjab Command, and in the beginning of September concentrated at Fort Shabkadr.

Whilst Blood's column in the middle of September was to proceed from Swat into the Panjkora Valley and down from the north into the broad Bajaur Valley and to break down the central seat of rebellion, Elles' column was to press forward in a north-west direction from Shabkadr over the Bedmanai Pass and to join hands with Blood at the end of September.

On the night of 14th September Blood's advanced guard was first attacked at the village of Markanai. The attack was however, thanks to the action of the mountain guns, beaten off with serious loss to the enemy. There was no longer any obstacle to the passing into the rich Valley of Bajaur; on the other hand, Blood, from the uncertainty of his being able to unite

¹ It may perhaps be interesting to know that the path followed by Blood in August and September is approximately the same as that by which Alexander the Great pressed forward in the early summer of 326 B. C. to the upper Indus, while his main column going direct through the Khyber had to reach the river somewhere near Attock.

with Elles in a forward direction, considered that he must pay attention to his rearward communications through the Swat Valley, and with that view sent back one of his three brigades to the Panjkora. The main body reached Nawagai on

September 14th and 15th.¹

Whilst Blood was putting everything in order in this direction and was laying low all villages and small fortifications, Elles' column left Shabkadr on 15th September and, issuing on the 16th into the open Gundab Valley, reconnoitred the passage over the Nahaki Pass and quickly proceeded to get into direct communication with Blood. On the nights of the 19th-20th and 21st-22nd the latter in his entrenched camp at Nawagai had to bear the brunt of the attacks of some thousands of Mohmunds led by the Mulla Hadda

himself; on September 22nd General Elles joined him at Lakare beyond Lakai.

On September 25th a combined attack was delivered against the Hadda Mulla who had entrenched himself in the Bedmanai Pass.

There was, however, no onslaught, as the mountain artillery had accomplished of itself all the work of the battle.

The complete overthrow of the Mohmunds was however not accomplished for some time. English newspaper reports of September 29th and October 4th certainly announced the happy termination of the cam-

¹There is a very curious remark in an official telegram of the Viceroy of October 14th—"The Mohmunds have given up almost all the rifles *which our troops lost.*"

paign and of the giving up of arms and payment of the fine by the Mohmunds.¹ In any case only one portion of the Mohmunds was thus far humbled, for the intention

of withdrawing a part of the mobilised force from the country in October and employing it in Tirah was not carried out. In fact until the beginning of January flying columns traversed the various valleys, daily burning the abandoned villages and at times being annoyed by petty night attacks. The direction of these marches across and through the country is difficult to ascertain, for the English Staff map which is especially distinguished by its topographical meagreness, does not contain the majority of the names of the places mentioned in the telegrams. At the end of December the tribes between the lower Swat and the Indus, the Buners or Bunerwals, at last took up arms and it was thought would give great difficulty. Consequently Blood's column which was broken up as the Mohmund Field Force on January 7th, had to be immediately reconstituted again as the Buner Field Force. The English losses in the Swat and Mohmund campaign were not significant—about 300, of whom 10 per cent. were officers, and this high percentage is astonishing. The English account for this on the ground that English officers, by reason of the difference in their uniform, were recognisable at a distance by the enemy's marksmen. The Austrians up to 1866 and the French with their Zouave officers have had similar experiences. A further reason may be looked for in this, that English officers of Native Corps have to more than ordinarily expose themselves in order by their example to lead the troops forward.

THE TIRAH CAMPAIGN (AFRIDIS AND ORAKZAIS).

The revolt north of the Cabul river may be regarded as suppressed at any rate by the beginning of October. From that date the main business lay in the Tirah region, and the overthrowing of the Khyber tribes, the Orakzais and Afridis, had yet to take place.

The Afridis had evidently intended the rôle of their fellow rebels to be the making of a strong demonstration in the north, whilst they themselves would carry out the main attack—and this is the cause of the revolt first breaking out in the Swat Valley.

On August 22nd and 25th the two English forts in the Khyber Pass—Ali Musjid and Landi Kotal—fell into the hands of the Afridis.

Both these primitive fortifications were garrisoned only by a few hundred men of a militia raised from among the Afridis themselves, and under English officers, *vis.*, the Khyber Rifles. As was only natural, the majority of the garrison with their rifles went over to their fellow tribesmen. The pass was hardly in their hands when the Afridis in two columns took the offensive out of the valley and simultaneously moved towards Fort Jamrud and further south towards Kohat with a mixed column of Afridis and Orakzais. The northern column, it appears, came to a stand in the vicinity of Fort Jamrud—the presence of strong English reserves at Peshawar evidently having paralysed their enterprising spirit; besides this, they of course as genuine mountain folk had an aversion to the open plain.

The south column pressed forward and with its head reached the vicinity of Kohat; Forts Gulistan and Lockhart were hotly assaulted, but did not give in; only a small advanced post on the upper Kurram Valley was taken, but a few days after was again retaken by an English brigade. Here too the artillery quickly turned the scale. From the middle of September things became peaceful and it is said that the non-payment of subsidies which had fallen due had brought the Afridis to their senses.

In the meantime however the Government had determined to despatch a punitive expedition on a large scale into Tirah.

As the General Commanding the Punjab Army, Lieutenant-General Elles was still employed with the Mohmunds, the chief command of the Tirah Field Force was given to Sir William Lockhart, the Lieutenant-General Commanding the Bengal Army. Lockhart received the order recalling him at Bad Nauheim in the middle of August. He set off in the beginning of September, and at the end of the month entered the frontier region.

N.B.—This is the greatest body of English troops that have ever been united under one leader!

In contradiction to the late utterances of a correspondent in the *Münchener Neueste Nachrichten*, the measures taken to cut down and limit the heavy baggage must be specially drawn attention to. General Lockhart made the commanders of units personally responsible for the strict carrying out of his orders in this respect. From the heavy baggage (camp followers) must be distinguished the columns and trains (transport) covered by the line of communication troops. The transport for well known reasons consisted only of pack animals, and of these, as it appears, a very large number indeed were necessary. From their number one may reckon at almost the rate of one pack animal for every combatant and from this originated the erroneous assertion about the sumptuary baggage trains of the Anglo-Indian Field Army.

PLAN OF OPERATIONS.

General Lockhart's plan of operations was briefly as follows :—

The goal of the operations was Maidan-Bagh, the chief place in Tirah, the Mecca of the Afridis, the seat of religious fanaticism, and consequently the focus of the rebellion.

This goal was to be reached almost simultaneously by three columns and they were to march thus:—

1. The right (Peshawar) column—General Hammond—of the strength of a mixed brigade from Bara Fort up the valley to Bagh, 45 miles.
2. The middle (main) column—two divisions strong, with line of communication troops, under the personal leadership of the General Commanding-in-Chief—from Hangu *via* Shinawari over the Chagru Kotal, Sampagha and Arhanga Passes across the Khanki and Mastura Valleys to Bagh, 65 miles.
3. The left (Kurram) column—Colonel Hill—two battalions, with a great strength in cavalry and a few guns—from Fort Kurram in the upper Kurram Valley (consequently from a westerly direction) over the Kurmana Pass into the Mastura Valley and on to Bagh, 50 miles.

All columns were to throw back the enemy whenever met with and to drive them together towards the Safed Koh or Bagh where the decisive blow was to be struck. On the way all defences and dwelling places were to be destroyed, provisions and stores to be seized, and approaches improved.

The commencement of operations was delayed until the middle of October, for the main column had first to be assembled at outlying Kohat and then a road had to be made under the protection of Forts Lockhart and Gulistan from Hangu *via* Shinawari to Karappa in the Khanki Valley.

Meanwhile Lockhart delivered a proclamation to the people of Tirah, in which the marching into their country of a punitive expedition was announced and complete submission was recommended.

The mountain tribes answered by assembling in great numbers on the Samana, in the Khanki Valley, and on Sampagha Pass which latter they covered by advanced troops on the Chagru Kotal. Brisk movements were also reported from the Bara Valley. The 2nd Division was at Shinawari in order of march on October 17th and the 1st Division reached Hangu on October 19th. According to orders the 2nd Division on October 22nd and the 1st Division on October 23rd were to cross over into the Khanki Valley *via* the Chagru Kotal and from that place both divisions were to deploy to the attack of Sampagha on 24th.

FIGHTS AT DARGAI ON 18TH AND 20TH OCTOBER.

In the meantime the Orakzais had strongly occupied the Dargai heights in the Chagru Kotal Pass through which the newly-made road led.

On the 18th October the advanced 2nd Division having received an order to clear the defile of the enemy took the Dargai Heights without any particular loss.

The Divisional Commander, General Yeatman-Biggs, however withdrew his troops after the fight into the camp at Shinawari without leaving the pass occupied. Lockhart thereupon ordered a fresh occupation of the place on the 19th, but Yeatman-Biggs

reported that "his troops were too fatigued." It was not until the evening of October 19th that the enemy driven away on the previous day returned in greater numbers to the heights, and when on October 20th General Lockhart himself took the attack in hand and strengthened the 2nd Division with a portion of the 1st Division which meanwhile had pushed forward to Kai (just south of Shinawari) he found that the defence in a previously prepared position was altogether more obstinate than on October 18th. The 2nd Division made, it appears, a somewhat precipitated frontal attack, without preparation by artillery and without waiting for the effect of flank attacks directed from Fort Gulistan against the enemy's right wing; while superior masses of the enemy who had hastened from Khangarbur to the sound of the battle threw themselves against the flank attack which was thought to be the main attack.

A seven hours' fight with tolerably numerous losses resulted, and in this fight again, as everywhere hitherto, the mountain guns finally brought about a decision and although these were the real means by which the enemy was driven out of his sangars, still the honour of the day was given to the popular Gordon Highlanders who took by storm the Dargai Heights (900 feet above the Kotal) without losses worth mentioning (3 killed, 27 wounded). On the same day the 2nd Division pushed its advanced guard to Karappa in the Khanki Valley and followed it on the 21st, whilst the 1st Division stood fast at Kai.

On the 22nd October the 2nd Division proceeded to Khangabur making a road as it advanced and the 1st Division reached Karappa; on the 24th and 25th the trains followed and a seven days' supply was established in Karappa and a line of communication command post organised.

The enemy had drawn off into the upper Khanki Valley and did not allow himself to be seen by day; only small foraging parties of the English were attacked and every night the English camp was fired into without any other effect than to disturb the repose of the troops.

SAMPAGHA-ARHANGA.

On the 28th October the main column, continually improving roads and constructing bridges as it advanced, arrived in the vicinity of Gandakai. Reconnoitring parties found Sampagha Pass strongly held. On the 29th this Pass and on the 31st the Arhanga Pass fell into the hands of the English—both with small loss on the English side, for the artillery, brought within 1,000 yards, sufficed to dislodge the enemy.

MAIDAN-BAGH.

On the morning of November 1st Maidan-Bagh was in the possession of the main column. At midday the Afridis made one more despairing attack in order to save their provisions and moveable property, but they were driven back.

By the 4th November the whole main column together with their columns and trains arrived in Maidan-Bagh and occupied an entrenched camp.

The goal of the operations was reached in twelve days, the enemy were driven back from position to position and dislodged from their political centre.

But withal the war was not at an end.

The aimed-at closing round the enemy by an advance in three columns was not successfully attained. There was a deficiency of news concerning the flank columns.

As to whether in the encounter at Sampagha and Arhanga Passes, where the enemy stood fast for five to seven hours, the locality would have allowed of the bringing about of a tactical decision, it is impossible to judge without a fuller knowledge of the circumstances.

From November the Afridis had recourse to other tactics, those tactics namely which highland folk everywhere pursue.

No longer did they make any collected stands but dispersed into detached groups and crawling away by day into their secret recesses, they fired from their secure rocky perches on the English camp fires or on unarmed columns marching in narrow passes. They fell on the commissariat and transport trains, and on weak patrols, outposts or flying columns, they ambushed the latter especially during a retirement, and if they met with opposition or were attacked by superior numbers they disappeared as trackless as they appeared. In a word, the guerilla warfare of the highlands took the place of the battle in large masses and it was practised with great success by these sharpshooters used to the hills, and armed with the most modern fire-arms.

In the face of these new tactics of the enemy the English, forced by necessity, were restricted to sending out flying columns into all the transverse valleys from the central camp at Maidan-Bagh or from the line of communication troops. These columns laid waste and burnt in all directions in order by terrorising the enemy to bring him to his knees, after such a result was not to be brought about through the decision of arms.

The central camp was connected with Kohat through a secure line of communication over the three passes and a telegraph line was established, as also a camel post service. On November 14th a serviceable mule and camel road to Maidan was completed.

On the other hand, no connection had yet been made with the two flank columns and at a reconnaissance in force in a westerly direction towards the Karmana Pass and in the direction of Sadda strong opposition had been met with. General Lockhart heard of the right (Peshawar) column, but only in a round-about-way by Kohat, that it had not yet wrested from the enemy the Gandao Pass, through which the Bara river makes its exit into the Indus plain. As regards this column one certainly cannot resist the impression that there was a lack of energetic leading. Under these circumstances General Lockhart at the end of November formed the plan of marching as quickly as possible with the main column down the Bara Valley (which takes its commencement in the Maidan region) in order to open the pass and to stretch out a hand to the dilatory right column. Before this, on 21st November, he caused a second proclamation to be made to a deputation of Afridi

Khels who had been summoned hither, in which he demanded their full subjection, the delivering up of plunder, the handing over of 800 breech-loaders and the payment of a fine of 80,000 rupees. For this purpose he granted them a week's respite. The period expired without any answer.

Meanwhile Colonel Hill on November 27th reported the approach of his (Kurram column) *via* Sadda-Esor after an attempt by the column to push forward through the Karmana Valley had failed.

Lockhart left behind in Bagh the 2nd and part of the 1st Division with orders that in the meantime they should visit the Chamkanni and Mammozai districts. He himself brought the 2nd Brigade (Gaselee) strengthened by the Divisional Troops into the Masozai country towards the Lozakka Pass, in order to bring about a connection with Colonel Hill's column. The march thither had again to be carried out for two days in the knee deep bed of a mountain stream, for the latter offered no practicable path along its bank.

UNION WITH COLONEL HILL.

After some light skirmishing on the way the Lozakka Pass was crossed on November 28th, on the 29th communication was established by helio. with the Kurram column and on the 30th union was effected at Hissar or Esor. From the very trifling losses which the Kurram column experienced, this column appears to have been delayed rather by the difficulties of the terrain than through any hostile action but how far these difficulties justify a 30 days' delay cannot evidently be determined. They must have been considerable, for the two cavalry regiments had to leave their horses behind at Fort Kurram and marched on foot with the other troops. The Nabha Contingent also and the half field battery remained behind, the former were replaced by the 15th Gurkhas, drawn from Kohat.

After a punitive expedition into the Karmana Valley to Thabbi Lockhart sent Hill's column back to Sadda, and he himself with Gaselee's brigade reached Bagh again on December 6th. In the meantime the first symptoms of winter gave warning that it was high time to depart. Allowing that in this latitude (as in the Northern Sahara) the mean of January = 53° Fahr., allowing further that the prevailing dry winds render snowfalls less frequent than in our Alps, still the mean elevation of Bagh and country round postulates a more inclement climate and, at the very least, severe night frosts. The main danger lay in the very vulnerable line of communication, for the first snowstorm would have snowed up the ravine channels serving as passes or have barred them on account of high water.

According to this, so far as the conditions can be understood, Lockhart had no other choice in December than a retirement.

There were indeed two reasons for the choice of the direction of the retirement being down the Bara Valley :—

1. This strip of the Tirah had not yet been visited by a punitive expedition, for the Peshawar column had not fulfilled its task.

2. It looked less like a retirement than if Lockhart had made his return march over the passes to Kohat.

HAMMOND IN BARKAI.

Meanwhile General Hammond of the Peshawar column had at last reported on December 3rd that large masses of the Aka and Zakka Khels had assembled in the upper Bara Valley and had surprised his road making troops in the Gandao Pass. It may be indeed that it had now been found possible to suddenly bring to a conclusion the difficult road-making which had for two months detained Hammond's column, or that General Lockhart gave an impetus to Hammond's energy. On the 8th December we find the latter all at once between Swaikot and Barkai, that is, about 9½ miles the further side of the pass in the upper Bara Valley. This day Hammond reported to Lockhart—"Opposition slight, losses up to date one killed, two wounded; road very difficult, a place for the main camp at Barkai will be looked out for to-day."—This latter report seems to be in consequence of an order on the subject from Lockhart.

Before his departure from Maidan Lockhart gave out the following third proclamation to the tribes :—I am leaving this highland only because the snow is coming and I do not wish to expose my troops to the cold. But I am not quitting your land but will certainly remain until the conditions of Government are fulfilled, and during the winter I will attack you in your settlements. In spite of anything your evil counsellors may tell you, the Afridis who attack the English are like flies who attack a lion! As an old friend of many among you, I advise you to give way and thus allow your wives and families to return to their homes from the cold hills.

MARCH FROM MAIDAN-BAGH, 7TH DECEMBER.

After a five weeks' halt Lockhart on 7th December marched out from Bagh in two columns: the First Division over the Arhanga Pass, Mastura Valley; the Second Division and head-quarters through the Bara Valley—reunion taking place at the confluence of the Bara and Mastura rivers.

During the march from Bagh, Lockhart gave up his hitherto base at Kohat, the line of communication was broken up, and the transport columns were sent back to Shinawari under the protection of the line of communication troops. As it was calculated that it would take five days to reach Barkai, the troops took only five days' rations with them.

As was to be expected, the return movement of the army aroused afresh the action of the enemy. The column in the Bara Valley particularly had to put up with the continual molestation of their rear-guard.

On the 11th December the rear-guard of Kempster's brigade was almost altogether cut up. These heavy losses combined with the wearing rear-guard service, day and night either fighting or in preparation for a fight, made a relief necessary.

On December 13th Westmacott's brigade took over the rear-guard duties. Immediately there-

¹ The barbarous customs of the enemy made it impossible to leave the wounded behind. Each battalion had but four to six litters which were carried by fighting men and not by special carriers. The removal of the wounded on these litters over the bluffs and through the ravines was a very difficult matter, and these difficulties were naturally augmented when the litters, that were to hand, did not suffice.

Herein is explained the astonishing delay in the retirement of rear-guards, and as a further consequence many partial catastrophes.

on, on December 13th and 14th, the attacks were renewed with particular vehemence, and Lockhart calls these actions the severest since the storming of the Dargai Heights. The difficulties in removing the wounded,¹ bad weather, rain and snow and the necessity of detaching bodies of troops into all the transverse valleys delayed the march. The provisions came to an end and to fatigues and hard-

ships were added privations.

In this way and not before seven days Lockhart with the 2nd Division reached the intended camp at Barkai on December 14th, where on the 9th Hammond and on the 12th Symons (1st Division) had already arrived. The latter division had fared better in the Mastura Valley. It had entered the valley of Waran on its flank with a punitive force and after that had reached the Bara Valley marching over Sapri Pass without much loss.

About this time snowstorms had already taken place and snow completely covered the passes between the Bazar and Bara Valleys. On this Lockhart determined to give the Khyber tribes one more lesson before the winter rest, for he hoped to get at them definitely now that any escape to the south from these parts appeared impracticable on account of the snow.

For this purpose Lockhart grouped his forces as follows :—

The 4th Brigade (Westmacott) with the Divisional Troops of the 2nd Division remained in the Bara Valley at Swaikot, the remainder of the 2nd Infantry Division took up winter quarters in Fort Bara. The 1st Division (which during the Tirah expedition had moved mostly in the 2nd line) and Hammond's column were to assemble at once at Fort Jamrud, advance through the Khyber Pass to Fort Ali Masjid and thence to visit the Bazar Valley, where the most turbulent of the Afridi tribes, the Zakka Khel, have their homes.

Before the carrying out of the plan, three battalions (Devonshire, Dorsetshire, Northamptonshire) were relieved by regiments of the Army Reserve in Rawal Pindi which had meanwhile been strengthened. This measure gave rise to unpleasant rumours regarding serious offences against discipline on the part of English troops. Now no soldier can defend offences against discipline, but England has the voluntary recruit system and is in a permanent state of embarrassment as regards her reserves. The voluntary soldier for that reason perceives very plainly that he is a much sought-after man—and this is a condition which must react against discipline, especially when greater strains and privations may chance to fall to his lot for he is a personage by nature full of pretensions.—On the other hand, it must not be forgotten that the European soldier in foreign colonies and fighting against savages experiences, in addition to hardships,

conditions which are inconceivable in a European war under the protection of the Geneva Cross.

Finally, contrary to the assertion of the press that the English on account of the prevailing dearth of recruits placed mere boys before their Indian foes, one may rather credit the assurance of the English War Minister (1) according to whom out of 18,000 English in Lockhart's corps 13,000 had more than four years' service.

¹Speech of the Marquis of Lansdowne at Edinburgh, 11th December 1897.

KHYBER EXPEDITION.

After a short rest Lockhart set out on December 20th to the Khyber Pass with the 1st Division and Hammond's column.

On December 22nd Hammond took Fort Ali Musjid. Fort Maude was again placed in a defensive state, and as a garrison Ali Musjid received the 45th Sikhs and two guns. In the mean time Lockhart stood fast with the 1st Division at the east entrance to the Khyber.

On 24th December the defences of the Afridis at Landi Khana were destroyed—the 1st Division marched to Ali Musjid, while Hammond on 25th and 26th December pushed forward to the western barrier fort of the pass, Landi Kotal, and found it intact but abandoned and plundered; in spite of the exceedingly difficult road, an advance was made into the Bazar Valley without at any time meeting any opposition; however during the return march insignificant attacks were again made by bands of the Zakka Khels.

The wished-for decisive overthrow of this most dangerous tribe was thus not accomplished; as a matter of fact the majority of the Afridis escaped towards the southern valleys in spite of the snowed-up passes.

With this ceased the operations of the expedition for the year 1897.

WINTER QUARTERS.

The 1st Division has been in camp at Fort Jamrud since January 1st and strong garrisons have been placed in the pass.

Flying columns have also roamed the pass and guarded the telegraph line but these measures have not prevented it being cut daily.

The troops that had up to date been despatched against the Mohmunds and Buners and into the Tochi Valley have remained under arms. No valid and final success has at any time been attained.

Lockhart has gone to Peshawar and the Imperial Service Troops have been sent back to their homes. (Judging from official enconiums these troops appear to have proved themselves staunch. They were however employed with caution during the campaign—more likely from political consideration than from being unfit for employment or from want of confidence in them.)

PRESS OPINIONS.

Whilst official circles indulge in the hope that the inclement season of the year, the stopping up of the hitherto sources of help and the military occupation may humble the rebellious tribes, the public are of a different opinion. The Indian Press expresses itself very dissatisfied with the results achieved by the expedition and especially with details of its execution.

The publication of private letters of officers gives quite a different picture to that given by official despatches. The higher leaders have not come up to what was expected of them. Rear-guards when surprised and attacked have too often been left to their fate. The troops cannot be blamed for not obeying orders, for having remained too long in a place, etc., etc.,—the failure is to be looked for in the staff.¹ The campaign must in the spring enter into a new energetic

¹A reporter of the Tirah Campaign relates in the *Times of India* that the staff on the "Line of communication" was formed for the most part of officers who till then had worked in the Kriegs Ministerium (Adjutant General's Department) instead of those officers being selected who had gained their education on the "General Staff" (Quarter Master General's Department.)

phrase. In a word all the well known accusations that follow an unsuccessful campaign. One thing is certain—the Khyber Pass must remain open for this is demanded by English trade interests. The occupation of barrier forts is not sufficient for the protection of trade and a cordon system of small posts would be too risky. It is said that the Government intend to establish a standing fortified camp in Maidan-Bagh and to lay a line of railway to that place through the Bara Valley similar to the one that has been already laid in Baluchistan, to Quetta.

COST.

The cost of the Afridi expedition is computed at approximately two millions sterling.

LOSSES.

The Secretary of State for India gives the losses in killed and wounded as follows:—

| | |
|-------|-------------------------------|
| 134 | British officers. |
| 565 | British soldiers. |
| 1,210 | Native officers and soldiers. |

The list of losses of the latter is not yet closed.

To the above must be added considerable losses through sickness.

REVIEW.

Concerning the conduct of the campaign by the English the following brief remarks may be made.

In a mountain war, where the character of the country and the customs of the enemy have such striking peculiarities there cannot be much talk of tactics or tactical errors. The giving up of the Dargai Heights on October 18th, the passive opposition of the commander of the 2nd Division to the orders of the Chief Commander on the 19th, and the premature frontal attack on October 20th can indeed hardly be justified. It may truly be said that the

campaign was not brilliantly inaugurated by this introduction. Also it is hardly to be doubted, judging from what is universally acknowledged concerning the locality of Dargai, but that a timely, accurate and simultaneous attack by all subordinate leaders on October 20th would have struck a decisive blow.

After the first and last opportunity was not availed of when there was sufficient room for deployment and the enemy made a stand in larger numbers, it became a matter later on in the majority of cases of bringing as many rifles as possible in the front and this, where the front space was often barely 100 yards, demanded but little tactical skill. All the rest of the troops had to halt and wait in column of route until there was room, or had to march off to the rear, leaving it to the rear-guard to extricate itself as best it might. All that could be attempted was to mount and bring into position a couple of mountain guns. (It is interesting to note the moral effect of artillery against savage races in all colonial wars.)

There is little to find fault with in the executive conduct of the Tirah campaign; on the contrary General Lockhart's great energy and circumspection cannot be denied.

The plan of operations, however, suffers from an inner contradiction. On the one hand, three entire columns were given a geographical point as their strategic goal, evidently because the combined opposition of a united hostile force was not expected: on the other hand, it appears that this possibility was reckoned with because the main mass of the available forces was united on the middle line of operation, at Kohat, evidently with the object of a main decisive stroke. The concentration and transporting of these troops brought about a delay of fully four weeks in the commencing of the campaign. Through this the Afridis gained time to drive away their flocks, secrete their stocks of provisions and to organise their opposition, while the date of the commencement of operations by the English approached dangerously close to the time when the season of the year must interrupt a campaign.

Without a fuller knowledge of the country and the information about the enemy which was to hand in September and known to the Chief Commander, it cannot be said whether General Lockhart made an actual error in having the wing columns too weak from the commencement. One thing is more certain: *the main column was at the least too strong by one half*; because with its inevitably narrow and deep columns of march only one division—and this scarcely with all its troops—could manage to march up and deploy for attack in the space of one day.

The giving of a large body of cavalry and field artillery to the Kurram Column was certainly a mistake (in other respects the week's march on foot of 1,000 cavalry is a good proof of the excellent discipline of the Indian troops); the peculiar features of the country could hardly come as a surprise to the English after their knowledge of its abnormal difficulties which they must have acquired during the two Afghan wars of many years' duration.

A more accurate knowledge of the locality might have altered the case, but the staff of the Afridi expedition cannot be held responsible

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for the want of English staff maps and the consequent errors in the giving of orders and troop-leading. There must be some special reason for the districts of the warlike hill folk being left so amazingly empty on the map, for the region around Fort Kurram—which is farther from the boundary—is for example filled in much more in detail. It seems that English topographical work in Afridi land is a very dangerous business.

Seeing that, with the exception of Dargai, there are no substantial tactical or strategical errors to be found in the execution of the campaign, one arrives at the conclusion that *taking into consideration the peculiar country and peculiar people which have been portrayed, the Afridi is not to be brought to book in the way chosen by the English, even with the best troops and under the best leaders; and that for a raid on free-booters or brigands in a mountain region one does not employ a locked up Army Corps.*

Had an inroad been made into the enemy's country by flying columns of similar strength—such columns consisting only of troops practised in hill climbing, such as Gurkhas, Gordon Highlanders and Mountain Artillery, had such an invasion taken place simultaneously from many points and been made systematically and without relaxing the pressure, it would in all probability have led to the desired result.

But best of all would it have been had the English, as formerly against Afghanistan, placed their *amour propre* on one side and purchased not only peace but also, if it must be, the phantom of the "Sphere of interest," with a portion of the millions that the war cost.

Influential ministers and generals in England and India have already publicly expressed this opinion. Whether this view will prevail or whether in the spring the objectless raid will commence a new, remains to be seen.

NOTICE.

The Council has placed Rs. 500 at the disposal of the Ex-Committee for allotment as premia during the current year, to the writers of articles of exceptional merit.

NOTES ON HILL WARFARE By Lieutenant-Colonel J. A. H. Pollock, 1st Sikhs, can be obtained in Pamphlet Form, on application to the Secretary, United Service Institution of India.

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